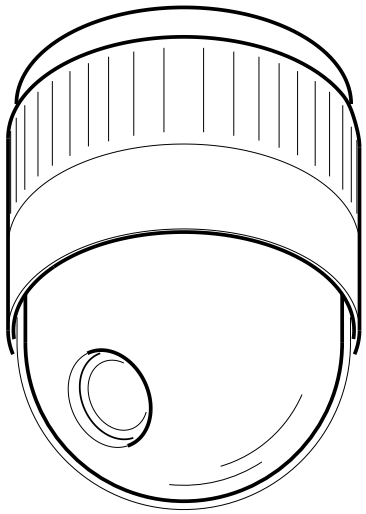
JVC®

DOME TYPE CAMERA

TK-C655
TK-C676

INSTRUCTIONS
(B)



LWT0200-001A-H

These are general IMPORTANT SAFEGUARDS and certain items may not apply to all appliances.

IMPORTANT SAFEGUARDS

1. Read all of these instructions.
2. Save these instructions for later use.
3. All warnings on the product and in the operating instructions should be adhered to.
4. Unplug this appliance system from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
5. Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
6. Do not use this appliance near water – for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
7. Do not place this appliance on an unstable cart, stand, or table. The appliance may fall, causing serious injury to a child or adult, and serious damage to the appliance.
   Use only with a cart or stand recommended by the manufacturer, or sold with the appliance. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
   An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

   PORTABLE CART WARNING
   (symbol provided by RETAC)

   S3125A
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the appliance and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the appliance on a bed, sofa, rug, or other similar surface. This appliance should never be placed near or over a radiator or heat register. This appliance should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
9. This appliance should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company. For appliance designed to operate from battery power, refer to the operating instructions.
10. This appliance system is equipped with a 3-wire grounding type plug (a plug having a third (grounding) pin). This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
11. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it form the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
12. Do not allow anything to rest on the power cord. Do not locate this appliance where the cord will be abused by persons walking on it.
13. Follow all warnings and instructions marked on the appliance.
14. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
15. Never push objects of any kind into this appliance through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the appliance.
16. Do not attempt to service this appliance yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
17. Unplug this appliance from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the appliance.
    c. If the appliance has been exposed to rain or water.
    d. If the appliance does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to normal operation.
    e. If the appliance has been dropped or the cabinet has been damaged.
    f. When the appliance exhibits a distinct change in performance – this indicates a need for service.
18. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
19. Upon completion of any service or repairs to this appliance, ask the service technician to perform routine safety checks to determine that the appliance is in safe operating condition.

Thank you for purchsing this product.
(These instructions are for TK-C655E, TK-C676E)
Before beginning to operate this unit, please read the instruction manual carefully in order to make sure that the best possible performance is obtained.

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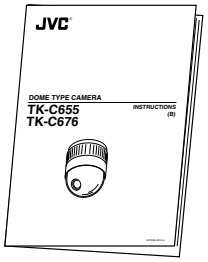
Introduction

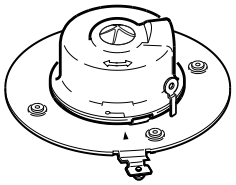
Features

- DSP with a wide dynamic range
  Even objects that have a large difference in brightness can be monitored clearly.
- Day/night surveillance
  When the light is low, the camera pictures can be switched automatically to black and white pictures.
  The camera is also compatible with IR illumination (wavelength 850 nm to 880 nm).
- Private masking facility
  When the camera target area contains an area that is required to be hidden the camera can be set accordingly in order to mask it.
- High-speed pan/tilt table
  The high-speed rotating table with a horizontal panning speed of 300°/sec. and a vertical tilting speed of 180°/sec. makes it possible to recall a preset position quickly.
- High-sensitivity CCD and bright zoom lens
  TK-C655: The CCD features an improved sensitivity of nearly 70% over the previous model and the zoom lens has a large aperture ratio of f1.6 (at WIDE end). These features provide the camera with a high sensitivity of 2.0 lx in the color mode (50% output, AGC 20 dB).
  TK-C676: The CCD features an improved sensitivity of nearly 70% over the previous model and the zoom lens has a large aperture ratio of f1.4 (at WIDE end). These features provide the camera with a high sensitivity of 0.5 lx in the color mode (25% output, AGC 20 dB, WIDE end, electronic sense up x2).
- Optical zoom lens (TK-C655 only)
  Detailed surveillance can be performed with the approx. x25 optical zoom lens.
- Optical + electronic zooming (TK-C676 only)
  The x27 optical zoom lens and x10 electronic zoom circuitry allows the camera to be used even in surveillance situations in which the object is very small.
- Simplified waterproof design (TK-C676 only)
  The simplified waterproof design (IEC529) of the camera allows it to be installed in many locations, including under eaves, provided that it is not subjected to direct water splash. (However, note that the camera cannot be used outdoors.)

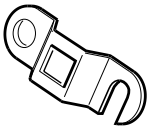
Provided Accessories

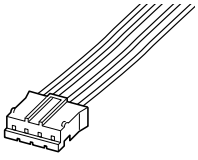


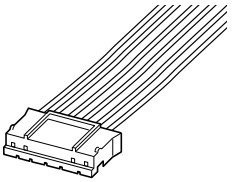
Instructions

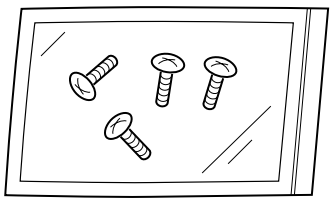

Ceiling mount

Screw
(M3 × 12 mm)
For cable plate


Cable plate


4P Alarm cable


6P Alarm cable


Screws (M 4 x 12 mm)
For the ceiling flush mount bracket

Safety Precautions

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

AVERTISSEMENT:
POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER L'APPAREIL A L'HUMIDITE OU A LA PLUIE.

WARNING

- Install the unit on a strong and stable surface.
  This unit has been designed to revolve at high speed. Due to its weight (about 2.4 kg) and the vibrations it may be subjected to, the camera must be mounted to a sturdy and stable material. If the ceiling material lacks strength, for example it is made of a decorative laminated material or plasterboard, then the mount should be reinforced using materials such as veneered plywood. If such reinforcement is inadequate images may fluctuate due to vibration or, in the worst case, the camera may fall and cause a serious accident should there be anyone below it.
- For installation, use the provided ceiling mount and the optional flush mounted ceiling bracket, which is sold separately. When installing this device the provided ceiling mount and the optional flush mounted ceiling bracket, which is sold separately should be used. Also be sure to connect the drop prevention wire and tighten all screws and nuts firmly.
- Power the unit with the rated power voltage.
  The power rating for this unit is 24 V AC, 50 Hz/60 Hz. If a power above this rating is supplied, a malfunction will occur or, in the worst case, smoke or fire may be produced.
- This unit offers a certain degree of protection against any damage either to itself or to its connection cable that might result from indirect lightning strikes, but it is not capable of preventing all damage by lightning strikes. For example it is not protected against a direct lightning strike. If lightning damage can be expected in the place where the unit is installed, be sure to take countermeasures by adding an arrester to the connection cable, etc.

CAUTION

- Installation of this unit requires special skills. Please be sure to consult your dealer about installation procedures.
  If the mounting screws or nuts are not tightened sufficiently, the camera may fall from its installation location. Be sure to tighten the mounting nuts firmly to prevent this happening.
- Inspect the unit periodically.
  Check periodically for any deterioration of the mount sections or loosening of screws due to vibration and ensure that there is no likelihood of the unit dropping.

Precautions for Correct Operation

- To save energy, turn the system off whenever it is not in use.
- This camera has been designed for indoor use. It cannot be used outdoors.
- This camera has been designed to be hung from a ceiling, do not install it in an upright position on a surface or at an angle, as this may cause a malfunction or a noticeable shortening of its service life.
- Do not install or use the camera in the following locations.
  - In a place exposed to rain or water. (The waterproof characteristics of the camera for TK-C676 are equivalent to IEC 529.)
  - In a place containing vapor or oil soot, for example in a kitchen.
  - In a place outside the operating temperature range (-10°C to 50°C).
  - Near a source of strong radio waves or magnetism, radiation or X-rays.
  - In a place where corrosive gassed are generated.
  - In a place subject to vibrations.
  - In a place with excessive dust.
- Insufficient ventilation of the camera may cause a malfunction. Be careful not to block ventilation to the camera.
  This unit radiates heat from the panel surfaces (top panel and side panels). Do not install it in a place where a heat pool may form, such as near a wall.
- Do not install the camera in a place exposed to cold air, for example near to the air outlet of an air conditioner. Otherwise, moisture may become condensed inside the dome cover.
- Do not point the lens at a strong light source, for example the sun, doing so may cause the camera to malfunction.
- The camera incorporates an AGC circuit. As a result, when it is used under low light conditions the camera gain may increase automatically. This makes the picture appear uneven , however this is not a malfunction
- When equipment that generates strong magnetism such as a transceiver is used near to the unit while the AGC circuit is ON, beat noise, etc may interfere with the picture. If a transceiver or similar equipment is used keep it a distance of at least 3 meters from this unit.
- In auto iris mode, when the AGC circuit is ON, varying the iris with the iris control button may not change the picture brightness. This is due to the automatic gain boost by the AGC circuit. In this case, set AGC to OFF or use the manual iris mode.
- In auto iris mode, the iris control button may not function under certain brightness conditions (i.e. when a sufficient amount of light cannot be obtained). In this case, set the iris mode to manual.
- When the camera is used in ATW (Auto White balance) mode, the colors captured by the camera may differ from the actual colors being shot due to the mechanics of the auto-tracking operation within the white balance circuit. However, this is not a malfunction.
- If a very bright object (such as a lamp) is being monitored, the picture may contain vertical lines (smear) above and below the bright object in the picture. This is a phenomenon normal to a solid-state image pickup devices (CCD) and is not a malfunction.
- The electronic shutter speed of the camera has been set to 1/50 second at the factory. If the camera is used under a fluorescent light source in an area with a local power frequency of 60 Hz, change the shutter speed to 1/120 second using the remote control unit. (Note that the sensitivity will deteriorate slightly.)
  However, when the ExDR function is ON, the flicker may not disappear.
- When the camera is used to monitor the same position over many hours (e.g. continuously for 24 hours a day) the contact resistance of the panning mechanism may increase. This may cause the picture to be affected by noise interference or the remote control operation becoming unstable. To prevent this happening, once a week, turn the system off and on in order to initialize the camera and to clean the contacts.
- Do not touch the lens on the dome cover directly by hand. Contamination of the cover will lead to deterioration of the picture quality.
- Since the dome cover is of a hemispherical shape, the picture tends to become distorted at the edges of the hemisphere. When the camera is tilted and pointed in the horizontal-direction, the picture may be out of focus because the camera will then capture the edges of the hemisphere.
- When an object is located near a light source or contains a large difference in brightness, a ghost may interfere with the picture. This phenomenon is due to the characteristics of the dome cover and the built-in lens and is not a malfunction.
- Observe the following points when carrying out maintenance of the camera.
  - Turn the system off before proceeding.
  - Clean the dome cover using a lens cleaning cloth (or tissue).
    The dome cover may become stained in a very short period in certain operating environments. If the dome cover lens becomes excessively contaminated, clean it with a lens cleaning cloth (or tissue) moistened with a solution of neutral detergent in water.

■ Note on consumable parts

The following parts are consumable and should be replaced after a certain number of hours or a count of operations.
The service lives given below are only typical values. They may vary depending on the operating environment and conditions.
Note that the replacement of consumable parts is chargeable even when they are replaced before the termination of the warranty period.

- Zoom lens assembly
  Zooming operation : 2 million times
  Focusing operation : 4 million times
- Slip rings : 5 million operations
- Cooling fan : Approx. 30,000 hours
- Alarm output 1 relay : 200,000 times of operation

■ Note on auto focusing

Although this unit incorporates a one-push auto-focusing system and EASY AF functions, auto-focusing may sometimes be impossible depending on the object and camera setup. In this case, adjust the focusing manually.

Objects and images with which auto focusing may be difficult:

- When the image brightness is extremely high.
- When the image brightness is extremely low.
- When the image brightness varies continuously (for example when the object is a flashing light).
- When the image contrast (difference between bright and dark) is very poor.
- When the image does not contain a vertical contour component.
- When vertical stripe patterns recur on the screen.

Camera setups with which auto focusing may be difficult:

- When the AGC is activated and the image is coarse.
- When SENSE UP is activated and the image contains only little motion.
- When electronic zooming is activated and the image does not contain a large enough contour component. (In the case of TK-C676 only)

■ Zooming

When zooming is stopped near the TELE end during manual operation or by selecting a preset position, focusing may deviate slightly. In addition, the manual zooming operation may not always be smooth.
These phenomena are due to the characteristics of the built-in lens and are not malfunctions.

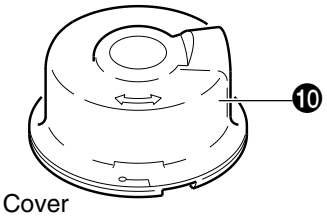
■ Preset positions

- The zooming position of the camera can be set to a total of 100 preset positions, including the home position.
- The electronic zoom can be preset up to x2.
  However, if the electronic zoom menu on the screen is set to OFF even presetting the electronic zooming to x2 , the camera itself moves to the preset position without the electronic zooming being activated. (TK-C676 only)
- It is not permitted to preset the electronic zoom to a larger ratio than x2. The message "INVALID POSITION (D.ZOOM)" will appear on the screen if a larger ratio than x2 is set. (TK-C676 only)
- The TILT position can be set and operated only between 0° to 90° even when the item “FLIP” is set to DIGITAL.
  (A TILT position between 91° and 180° cannot be set or operated. The message "INVALID POSITION (TILT) will appear on the screen if a larger TILT position than 90° is set.)

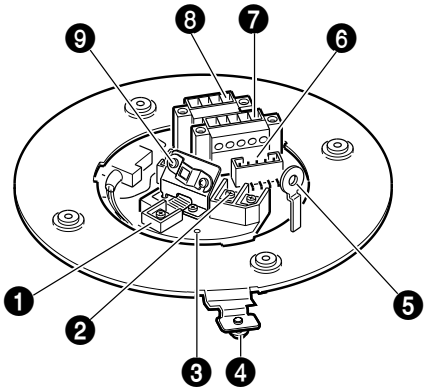
Connections & Installation

Controls, Connectors and Indicators

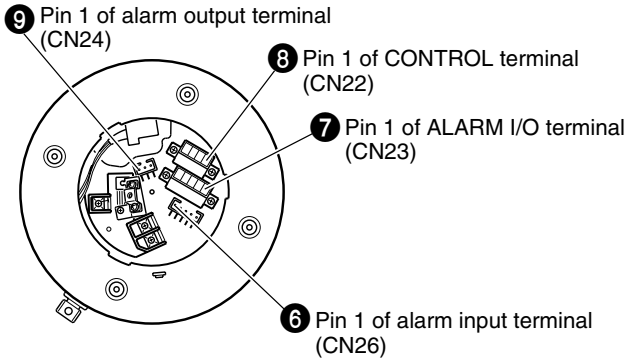
■ Ceiling Mount



Cover



(Connector side)


⑨ Pin 1 of alarm output terminal (CN24)
⑧ Pin 1 of CONTROL terminal (CN22)
⑦ Pin 1 of ALARM I/O terminal (CN23)
⑥ Pin 1 of alarm input terminal (CN26)

(Terminal Pin Layout)

❶ [VIDEO OUT] Coaxial Cable Connectors
Output connector of a composite video signal (1 V(p-p)) with an output impedance of 75 Ω, to be connected to a switcher, etc.

❷ [AC ∿ 24V INPUT] Connector
Connect to a 24 V AC power supply.

❸ Cover Position Alignment Mark
When attaching the cover, use this mark to align its final position correctly.

❹ Locking Screw
Tighten this screw to fasten the camera clamping bracket ⑱.

❺ Safety Wire Hole
To prepare for possible dropping of the camera, pass the wire from the ceiling slab or channel through this hole.

❻ Alarm Input Terminals (CN26)
Input terminals for Alarm 2, Alarm 3 and Alarm 4.
Connect the provided cables to these terminals.
☞ P. 17

Pin No.	Signal Name	Color of Cable
1	Alarm input 2	Brown
2	GND	Red
3	Alarm input 3	Orange
4	GND	Yellow
5	Alarm input 4	Violet
6	GND	Gray

❼ [ALARM I/O] Input/Output Terminals (CN23)
Terminals for Alarm input 1 and Alarm output 1.
☞ P. 17

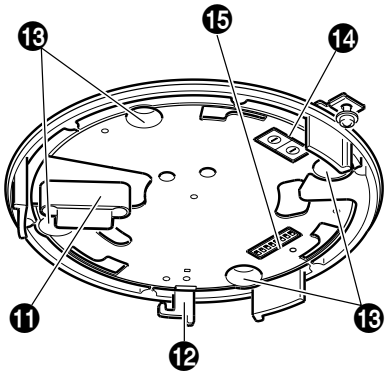
Pin No.	Signal Name
1	Alarm output 1 (N.OPEN)
2	Alarm output 1 (COM)
3	Alarm output 1 (N.CLOSE)
4	Alarm input 1
5	GND

❽ [CONTROL] Terminals (CN22)
Connect to a RM-P2580 remote control unit.

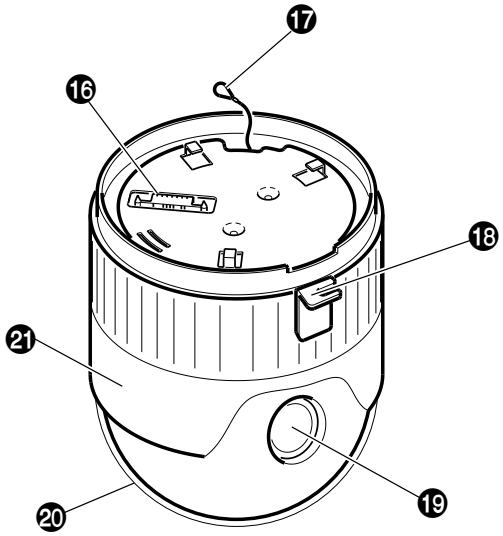
Pin No.	Signal Name	Mark
1	TX +	Ⓐ
2	TX –	Ⓑ
3	RX +	Ⓒ
4	RX –	Ⓓ

❾ Alarm Output Terminals (CN24)
Output terminals for Alarm 2 and Alarm 3.
Connect the provided cables to these terminals.
☞ P. 17

Pin No.	Signal Name	Color of Cable
1	Alarm output 2 +	Red
2	Alarm output 2 –	White
3	Alarm output 3 +	Orange
4	Alarm output 3 –	Gray



(Setting switch side)



⓾ Cover
For protection against water drips. Slit the rubber cap on this cover and pass the cable through the slits.
☞ P. 16

⓫ Camera Connector (Female)
Connect to ⓰, the **Male Connector** on the camera.

⓬ Drop Prevention Hook
Attach the Drop Prevention Wire ⓱ to this hook to prevent the camera from falling.

⓭ Clamping Holes (x 4)
Attach the camera to a ceiling or to a Ceiling Flush Mount Bracket (optionally available) using these holes.

⓮ [MACHINE ID] Switch
When an RS-485 communication system is used, for example when using the camera in a system controlled by an RM-P2580, set the camera IDs individually for each camera.
☞ P. 15

⓯ Setting Switches
Use these to set the PROTOCOL, etc.
☞ P. 14

⓰ Connector (Male)
Connect to ⓫, the **Female Camera Connector** on the Ceiling Mount.

⓱ Drop Prevention Wire
Attach this wire to the Drop Prevention Hook ⓬ on the Ceiling Mount.

⓲ Camera Clamping Bracket
In order to clamp the camera onto the Ceiling Mount, insert and tighten the **Locking Screw** ❹ into this bracket.

⓳ Lens
The lens cannot be replaced.

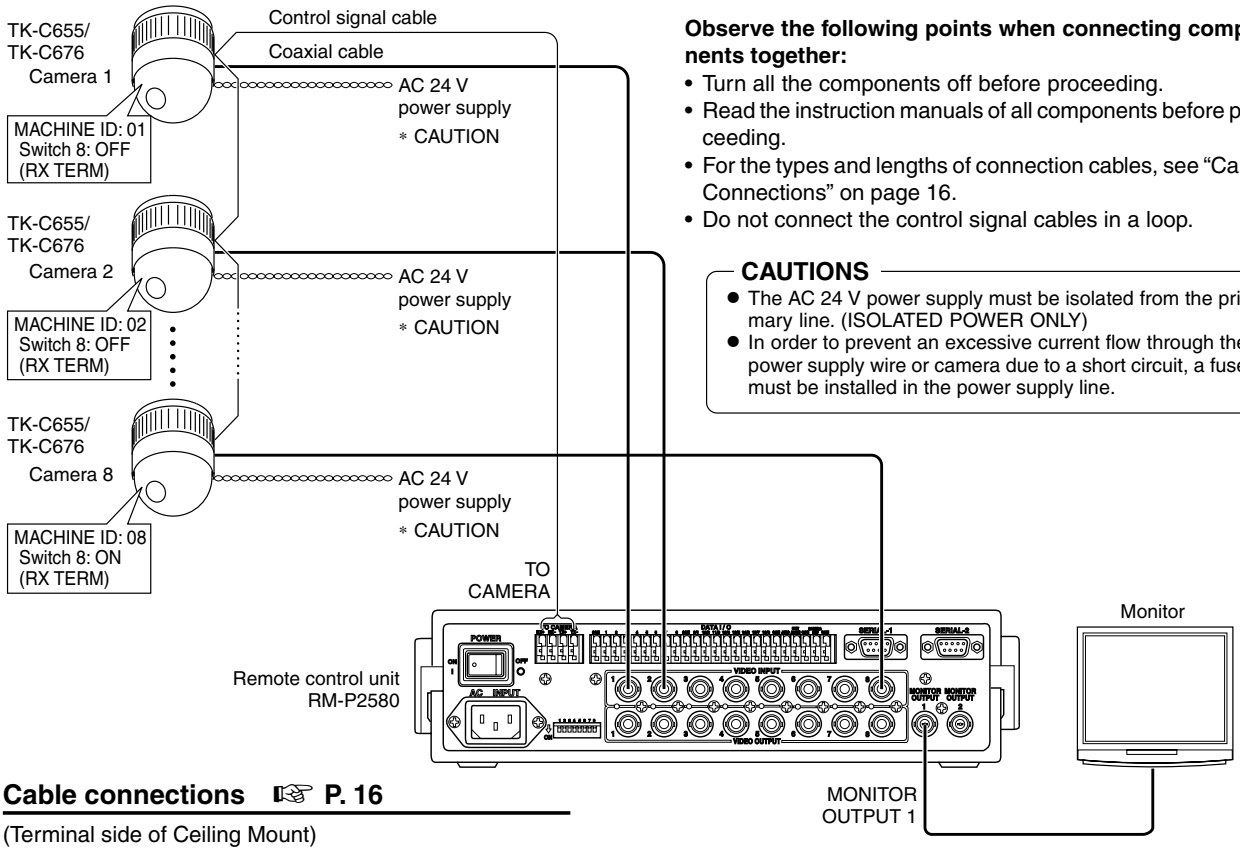
⓴ Dome Cover
The dome cover is fragile. Take care when handling it.

㉑ Camera Body Cover
Do not remove the camera body cover while the camera is installed on a ceiling. Doing so will cause the dome cover to fall down.

A Multi-Drop Communication System

■ A system that employs the RM-P2580 as the controller

The following figure shows a system that can accommodate up to eight cameras. (100 positions can be preset per camera.)



Observe the following points when connecting components together:

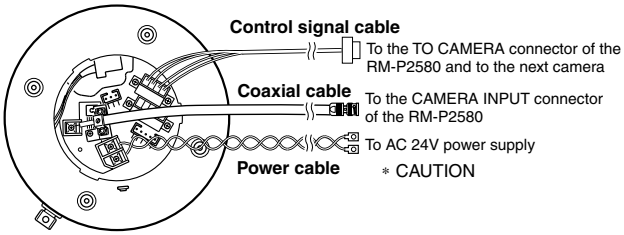
- Turn all the components off before proceeding.
- Read the instruction manuals of all components before proceeding.
- For the types and lengths of connection cables, see "Cable Connections" on page 16.
- Do not connect the control signal cables in a loop.

CAUTIONS

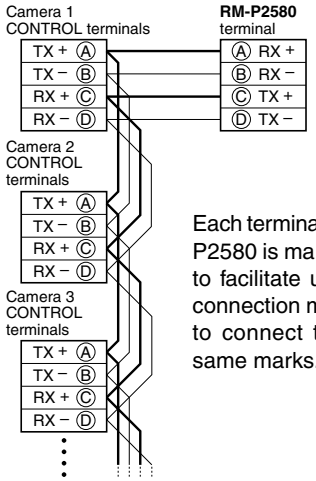
- The AC 24 V power supply must be isolated from the primary line. (ISOLATED POWER ONLY)
- In order to prevent an excessive current flow through the power supply wire or camera due to a short circuit, a fuse must be installed in the power supply line.

Cable connections ☞ P. 16

(Terminal side of Ceiling Mount)


Control signal cable
To the TO CAMERA connector of the RM-P2580 and to the next camera
Coaxial cable
To the CAMERA INPUT connector of the RM-P2580
To AC 24V power supply
Power cable
* CAUTION

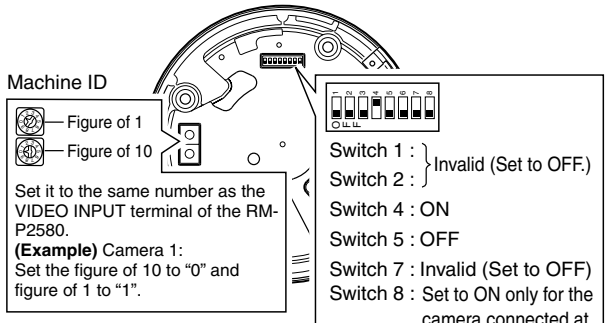
Connection of the control signal cable (A twisted pair cable is recommended.)



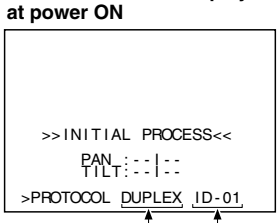
Each terminal on the camera and the RM-P2580 is marked Ⓐ,Ⓑ,Ⓒ or Ⓓ. In order to facilitate understanding and to avoid connection mistakes, it is recommended to connect the terminals carrying the same marks.

Switch settings ☞ P. 14

(Setting switches are on the side of the Ceiling Mount)


Machine ID
Figure of 1
Figure of 10
Set it to the same number as the VIDEO INPUT terminal of the RM-P2580.
(Example) Camera 1:
Set the figure of 10 to "0" and figure of 1 to "1".
Switch 1 :
Switch 2 :
Invalid (Set to OFF.)
Switch 4 : ON
Switch 5 : OFF
Switch 7 : Invalid (Set to OFF)
Switch 8 : Set to ON only for the camera connected at the end of the control signal cable.
Set to OFF for all other cameras.

Camera 1 monitor display at power ON



Duplex display — ID No. display

(ID check procedure ☞ P. 15)

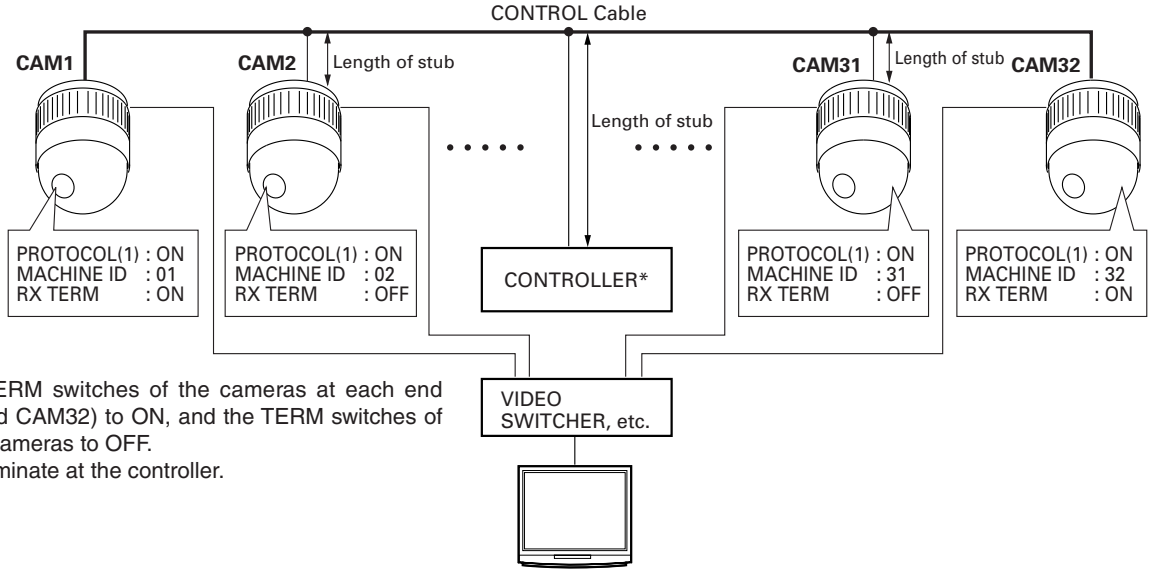
■ A system that does not employ the RM-P2580 as the controller

— MEMO

Be sure to terminate the control signal cable at both ends. The cables (length of stub) connecting pieces of non-terminated equipment (cameras or controllers) must be as short as possible. If the length of stub is too long, control precision may suffer.

● When the controller is not located at the end of a system. (An AC 24V power source must be supplied to each camera)

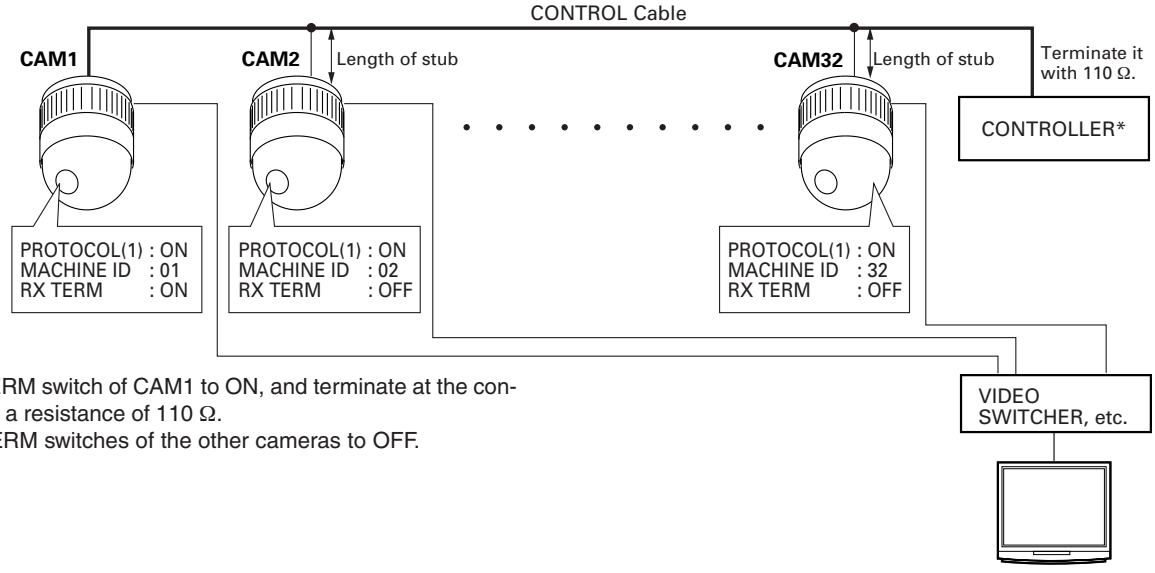
* **CAUTION**



- Set the TERM switches of the cameras at each end (CAM1 and CAM32) to ON, and the TERM switches of the other cameras to OFF.
- Do not terminate at the controller.

● When the controller is located at the end of a system. (An AC 24V power source must be supplied to each camera)

* **CAUTION**



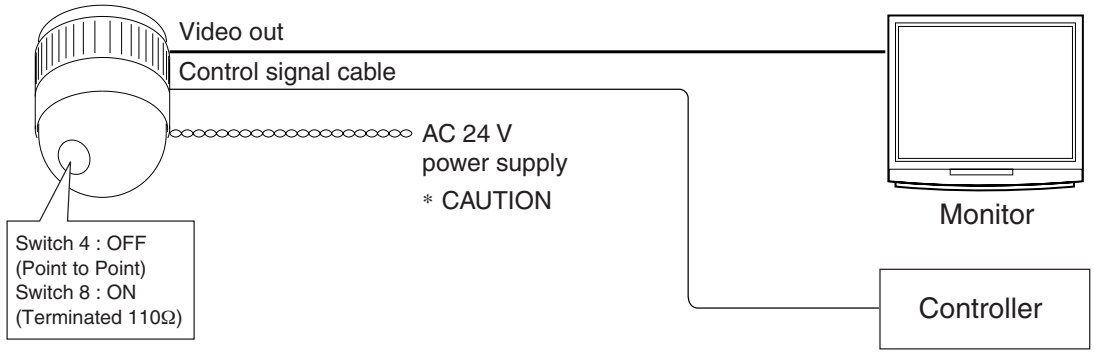
- Set the TERM switch of CAM1 to ON, and terminate at the controller with a resistance of 110 Ω.
  Set the TERM switches of the other cameras to OFF.

CAUTIONS

- The AC 24 V power supply must be isolated from the primary line. (ISOLATED POWER ONLY)
- In order to prevent an excessive current flow through the power supply wire or camera due to a short circuit, a fuse must be installed in the power supply line.

Point-to-Point Communication System

The following illustration shows a system in which a remote control unit (or a similar piece of equipment) controls a single camera.

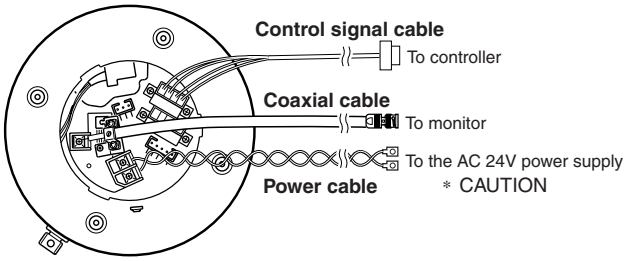


Observe the following points when connecting components together:

- Turn all the components off before proceeding.
- Read the instruction manuals of all components before proceeding.

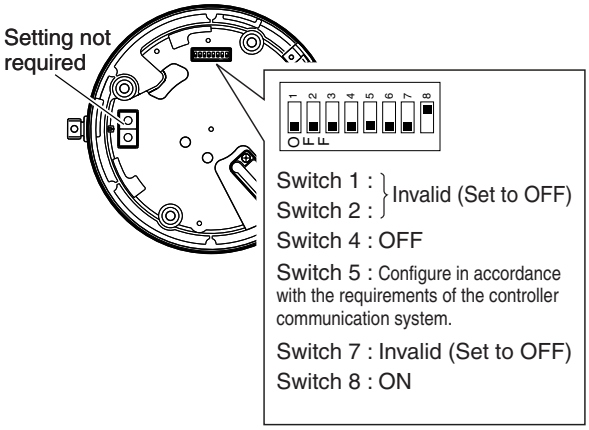
Cable connections ☞ P. 16

(Terminal side of the Ceiling Mount)



Switch settings ☞ P. 14

(Setting switches are on the side of the Ceiling Mount)


Setting not
required
1 2 3 4 5 6 7 8
Switch 1 :
Switch 2 : Invalid (Set to OFF)
Switch 4 : OFF
Switch 5 : Configure in accordance with the requirements of the controller communication system.
Switch 7 : Invalid (Set to OFF)
Switch 8 : ON

MEMO

If this camera or the cables connected to this camera are used in places subject to strong electromagnetic waves or other forms of magnetism, for example near a radio or TV transmitter, a power transformer or an electric motor, the picture may suffer from noise and colors may be affected.

An optionally available controller is required to use a TK-C655 or TK-C676 camera. Please contact your local dealer or installer for more information about these controllers.

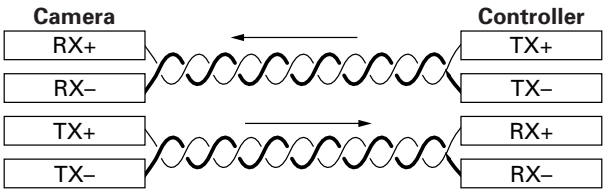
CAUTIONS

- The AC 24 V power supply must be isolated from the primary line. (ISOLATED POWER ONLY)
- In order to prevent an excessive current flow through the power supply wire or camera due to a short circuit, a fuse must be installed in the power supply line.

Use twisted-pair cables for the connections.

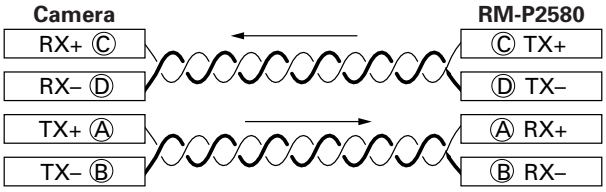
●Duplex

When the camera is controlled using the full duplex protocol, set Switch 5 to OFF.



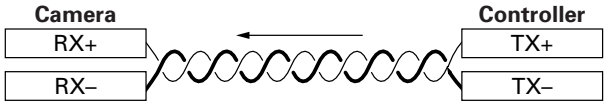
Four wires must be connected.

For example (connection with an RM-P2580)



●Simplex

When the camera is controlled using the simplex transmission protocol, set Switch 5 to ON.

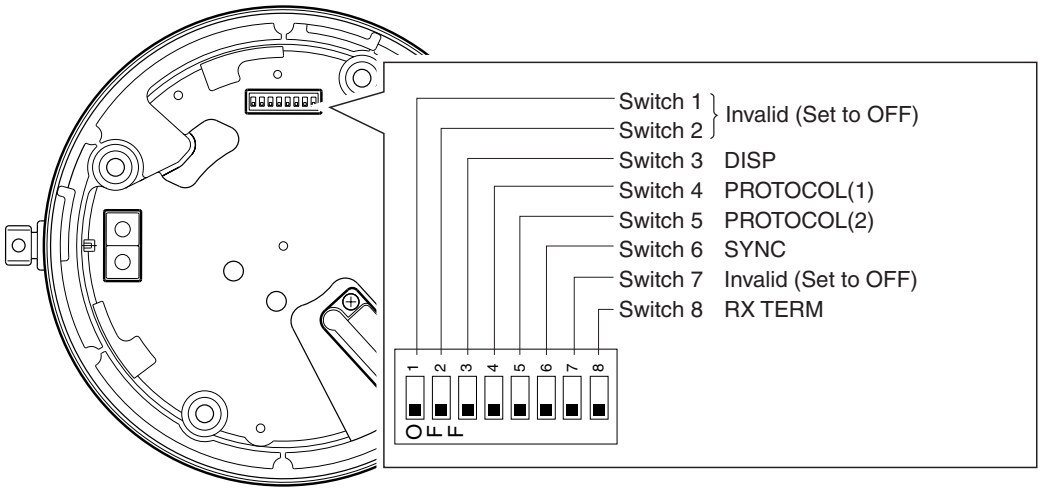


Two wires must be connected.

Switch Settings

Set the switches on the Ceiling Mount before installing the camera.
Settings vary according to configuration of the system used.

■ Setting switches



● Switches 1, 2

These switches must be set to OFF.

● DISP (Switch 3)

This switch selects whether “MANUAL” is displayed in the screen when a remote control unit is used to move the camera manually (to a position other than those preset.).

MANUAL	Switch 3
Displayed	
Not displayed	

(Initial setting: Displayed)

● PROTOCOL (1) (Switch 4)

Selects whether a single camera or multiple cameras are controlled in a system.
Set PROTOCOL(1) to Multi drop when connecting multiple cameras in series.

PROTOCOL (1)	Switch 4
Point to point	OFF
Multi drop (when using the RM-P2580)	ON

(Initial set: OFF)

When set to Multi drop, be sure to set the Machine ID of each camera.

● PROTOCOL (2) (Switch 5)

Set this switch according to the communication protocol used when controlling the cameras.

PROTOCOL (2)	Switch 5
Duplex (when using the RM-P2580)	OFF
Simplex	ON

(Initial set: OFF)

● SYNC (Switch 6)

When this switch is set to ON, the vertical sync of the camera becomes locked to the frequency of the AC power line.

SYNC	Switch 6
INT	OFF
LL	ON

(LL mode : 50 Hz area only)

(Initial set: OFF)

● Switch 7

This switch must be set to OFF.

● RX TERM (Switch 8)

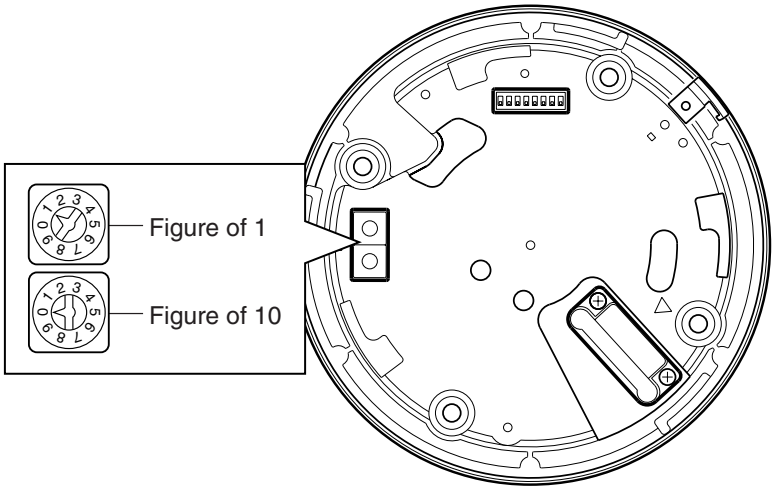
This switch sets whether or not the section between control signal terminals RX + and RX – is to be terminated (with a resistance of 110 Ω.)

RX Termination	Switch 8
Terminated (110 Ω)	ON
Open	OFF

(Initial setting: Terminated (110 Ω))

When the system in which this camera is used is a multi-drop system (RS-485 system), set only the camera located at the extreme end of the control signal cables to “Terminated” and set the other cameras to “Open”.

■ Setting switches



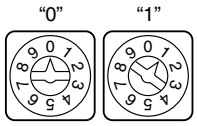
● **Machine ID**

When using a multi-drop system with a remote control unit such as a RM-P2580, the machine IDs need to be set for each camera.

Machine IDs are used to identify each of the multiple cameras connected to the RM-P2580. Set the machine IDs according to the corresponding VIDEO INPUT terminal numbers on the RM-P2580.

(Example)

The machine ID of the camera connected to VIDEO INPUT 1 should be set to “0” “1” as shown on the right.



— MEMO

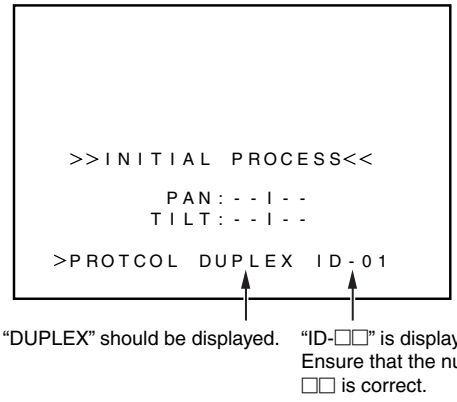
In a system using an RM-P2580, multiple cameras are connected by a single set of control cables. An error in the switch setting of even a single camera will make the entire system inoperable.

<Camera ID check procedure>

1. Set the picture being monitored to that of the camera to be checked.

2. Turn the AC 24V power source of the camera OFF and then ON again.

3. The camera now performs the initialization operation and the following display appears:



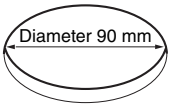
4. Ensure that “DUPLEX” and “ID-□□” are displayed and that the ID number is identical to the VIDEO INPUT terminal number on the RM-P2580.

5. If the ID number is incorrect, reset it accordingly.

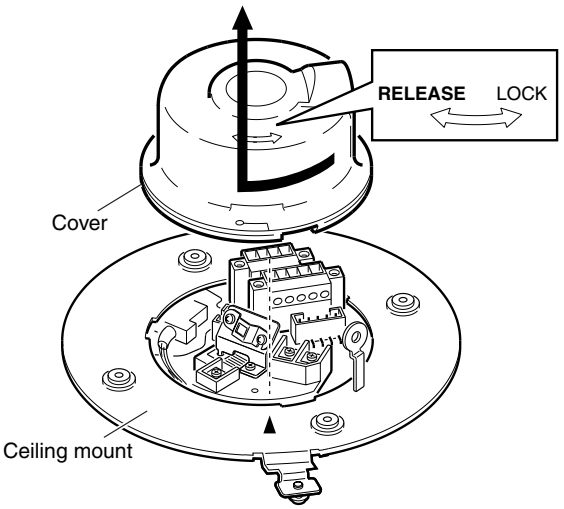
Cable Connections

Connect cables to the Ceiling Mount as described below.

1. Make a 90 mm diameter hole in the ceiling.

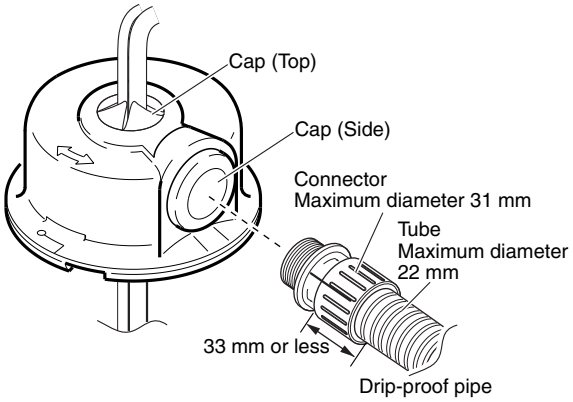


2. Remove the cover from the Ceiling Mount.



3. Pass the cables through the cover.

Make slits in the rubber cap on the cover as shown in the diagram below. Pull the cables through the hole in the ceiling and pass the cables through the slits.



The diameter of the cover hole without the cap is 20.5 mm. When the camera is installed in a place where it may sometimes be exposed to water splashes, for example under eaves, enclose cables in a drip-proof pipe.

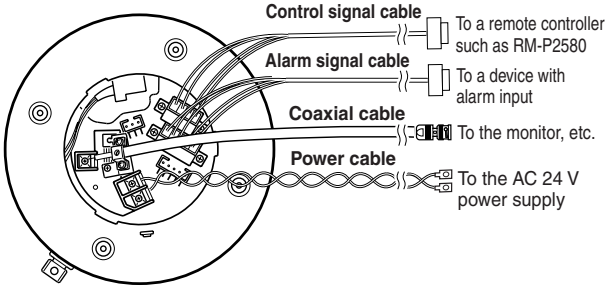
TK-C655: Be sure to use a drip-proof pipe. The maximum diametre of the pipe connector is 31 mm.

TK-C676: Be sure to use a water-drip pipe that complies with the IP52. standard. The maximum diameter of the pipe connector is 31 mm.

When distributing the cable from the side, use the WB-S573 ceiling direct-mount bracket. In this case, the length of the connector should be 33 mm or less, and the maximum diameter of the tube should be 22 mm or less.

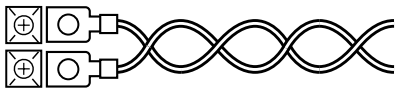
4. Connect the cables.

Connect the cables to the terminals on the Ceiling Mount. The four connection cables should consist of a AC 24V power cable, a coaxial cable, a control signal cable and an alarm signal cable.


Control signal cable
To a remote controller such as RM-P2580
Alarm signal cable
To a device with alarm input
Coaxial cable
To the monitor, etc.
Power cable
To the AC 24 V power supply

AC 24V power cable

This cable connects the AC 24V power supply to the AC 24V input connector. To prevent connection errors and disconnections, the use of lug plate for connections to the AC 24 V INPUT connector is recommended.



When a 2-conductor VVF (Vinyl-insulated vinyl-sheath cable) is used, the maximum connection length is as shown below. (These are merely the standard reference values.)

Maximum cable length	100 m	260 m	410 m	500 m
Wire diameter (mm)	1.0 or more	1.6 or more	2.0 or more	2.6 or more

CAUTIONS

- When a thin cables are used the cable resistance increases. As a result, when the power consumption of the unit is at its maximum level (during the simultaneous operation of panning and tilting) the effective voltage will drop.
  If the voltage does drop while the camera is in use, performance can become unstable and preset positions may not be reproduced accurately.
  To prevent problems, use thicker cables that have a lower resistance or decrease the cable length by installing the power supply unit close to the camera. Attempt to reduce drops in voltage to less than 10% while the rated current level of the camera is flowing through the cable.
- Do not connect an AC 24V cable directly to an AC 230 V outlet. This will damage the unit.
- The AC 24 V power supply must be isolated from the primary line. (ISOLATED POWER ONLY)
- In order to prevent an excessive current flow through the power supply wire or camera due to a short circuit, a fuse must be installed in the power supply line.

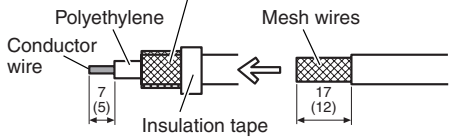
Coaxial cable

Connecting a **RG-59** coaxial cable.

If a **RG-11** coaxial cable is used it cannot be connected directly to the terminal board. To use such a cable, connect a **RG-59** cable to the camera and then connect the **RG-11** cable to the **RG-59** cable.

Treat the extremity of the coaxial cable as shown below before connecting it.

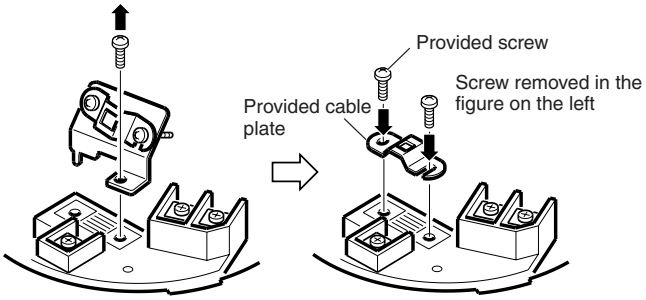
Fold back the mesh wires and secure them with insulation tape in order to prevent them from becoming loose and thus causing a short circuit.



The figures inside the brackets ( ) are the dimensions when the coaxial cable is distributed from the side of the cover. (Unit : mm)

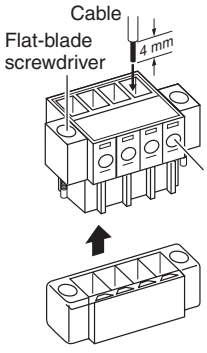
If the cable is extended, the signal attenuation is increased, the resolution drops and the noise increases. Should it be required to extend the cable, use a thicker cable or a cable length compensator.

To lead the coaxial cable through the cap on the side of the cover, change the positioning of the cable plate as shown below.



Control signal cables

RM-P2580 units allow the connection of up to eight cameras to a single set of control signal cables. The overall maximum permissible length of these control signal cables is 1200 meters.



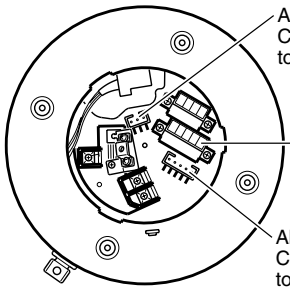
The connector can be released by loosening the screws on the two sides as shown in the figure.

Strip the coating of each cable by about 4 mm before inserting it. After connecting all of the cables, turn the screws on the side to fasten the connectors.

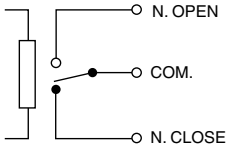
It is recommended to use a 4-core (a pair) twisted pair cable (0.65) or a twisted pair cable of category 3 or higher which is used for a Ethernet.

Cables with a thickness between 16 AWG and 26 AWG can be used. Connect the control signal cables so that the TX+ and TX- signals form a pair and the RX+ and RX- signals form another pair.

Alarm signal cables ☞ P. 8

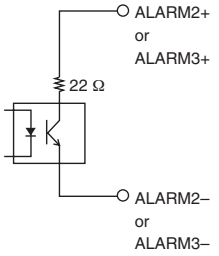

Alarm output terminals (CN24)
Connect the provided 4P Alarm cable to these terminals.
Alarm input/output terminals (CN23)
Alarm input terminals (CN26)
Connect the provided 6P Alarm cable to these terminals.

Electrical Specification of the Alarm Output Terminals



- The ALARM 1 terminal outputs a contact signal. In the alarm status, the section between N.OPEN and COM is shorted (makes an electrical contact) and the section between N.CLOSE and COM is opened (breaks contact).

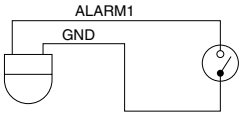
Rating
Maximum applied voltage: 30 V DC or 24 V AC
Maximum applied current: 2 A
Contact life: 200,000 times of operation



- The ALARM 2 and ALARM 3 terminals output open-collector signals insulated by photocouplers. The terminal is ON in the alarm status. As these terminals are provided with polarity, make sure that the voltage at the + terminal is higher than that at the – terminal. Do not apply inverse voltage to prevent damage of these terminals.

Rating
Maximum applied voltage: 20 V DC
Maximum drive current: 25 mA

Electrical Specifications of Alarm Input Terminals



- To prevent penetration of noise in the internal circuitry, apply a non-voltage contact signal to the ALARM input terminal. Never apply a voltage.
- Use the appropriate menu to select whether the alarm is identified by shorting (making contact) or by opening (breaking contact).
- Apply an alarm signal for at least 200 ms. If it is shorter, it is not guaranteed that the signal will be recognized as an alarm signal.

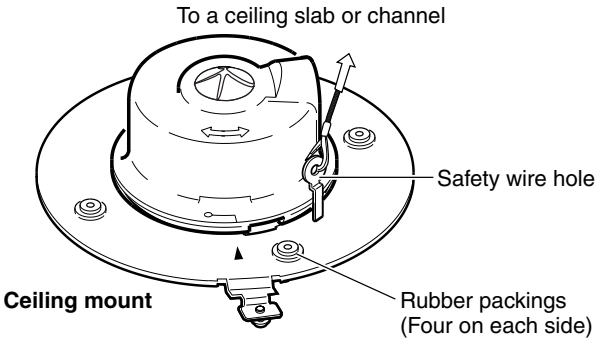
5. Attach the cover.

Attach the cover to the ceiling mount by reversing the operations in step ***2***.

CAUTION

In order to prevent foreign objects from entering inside the ceiling mount be sure to attach the hemispherical cover correctly. The penetration of foreign objects into the ceiling mount may cause a malfunction and smoking or in the worst case a fire ignition.

Attaching the Ceiling Mount

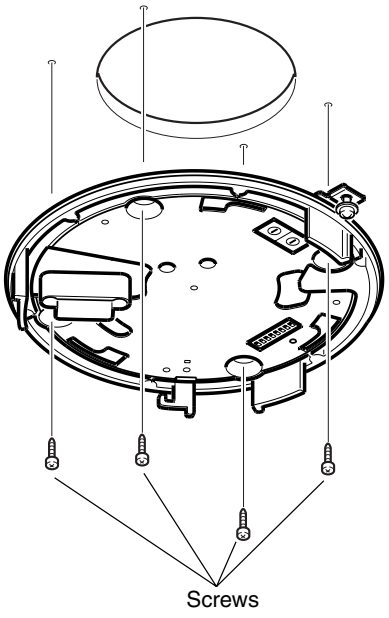


1. Attaching a safety wire.

Attach a safety wire to the ceiling mount and to the ceiling slab or channel to prevent the unit from dropping. First attach the safety wire to the ceiling mount by passing the wire through the safety wire hole (see the diagram on the left).

— MEMO

- Connect the wire so that it can be insulated from the ceiling structure. If the ceiling structure is made of a metallic material, improper insulation with the camera may produce noise in the video.
- Use a wire and ceiling attachment having sufficient length and strength to prevent danger in case the camera drops.
- A safety wire is not provided. Please select an appropriate commercially available wire.



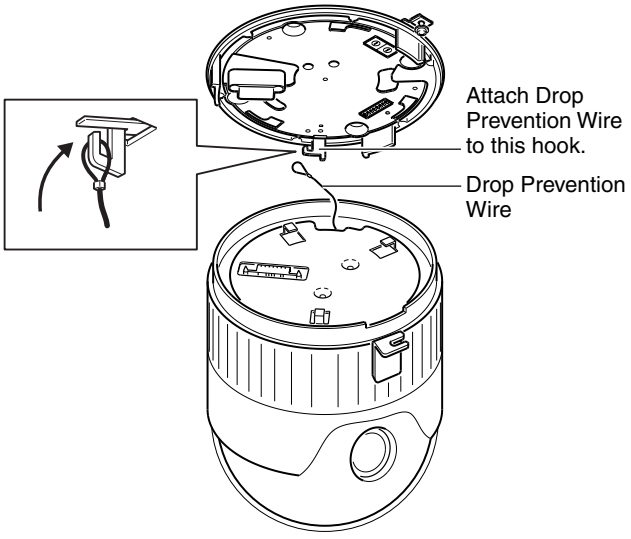
2. Attaching the ceiling mount to the ceiling.

While taking care not to catch the connection cables, attach the ceiling mount to the ceiling using four screws (as shown in the diagram). Use M4-sized screws or bolts. If woodscrews are used, use those with a diameter of 4.1 mm.

— MEMO

- Be sure to use four screws and attach them firmly. If the screws are not tightened firmly, dust and moisture may penetrate through the screw holes.
- The rubber packings attached to the ceiling mount screw holes of the ceiling mount play the role of insulation in case the ceiling structure is made of a metallic material as well as the role of drip proofing. If the ceiling structure is made of a metallic material, improper insulation with the camera may produce noise in the video. To prevent this occurring, be sure to ensure correct insulation of the installation.

Attaching the Camera



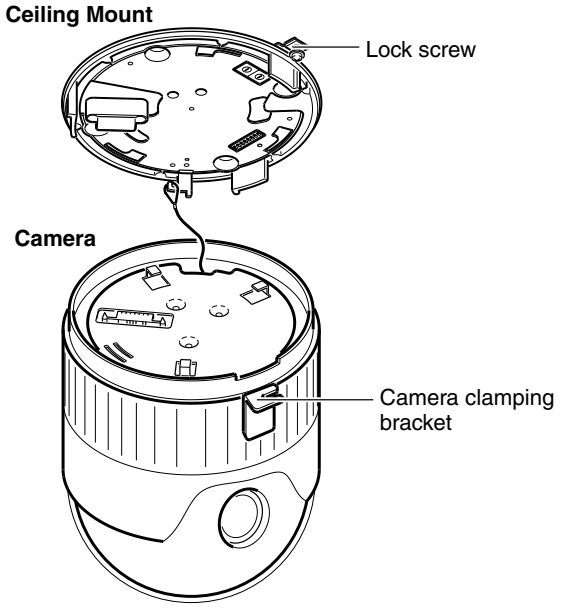
1. Attach the drop prevention wire.

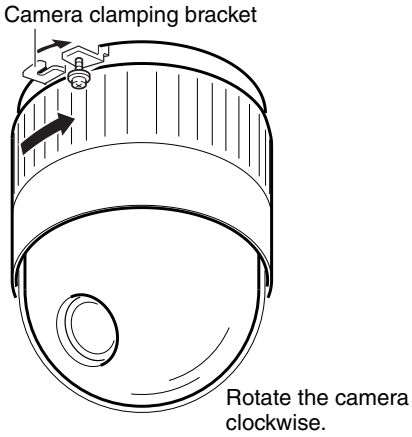
As shown in the diagram, take the drop prevention wire from the camera and attach it to the hook on the ceiling mount.

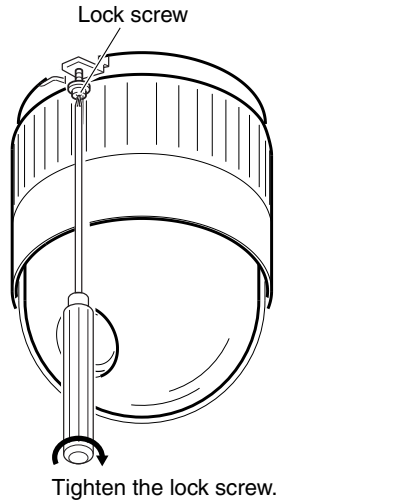
Be sure to connect the drop prevention wire. Otherwise, the camera will not fit properly to the ceiling mount. If they are engaged forcibly, they may be damaged.

CAUTION

Be sure to attach the drop prevention wire. Otherwise, the camera is in danger of falling.







2. Ensure that the lock screw is loose.

The camera cannot be attached properly if the lock screw of the Ceiling Mount is too tight.

3. Fit the camera.

Check the position of the camera clamping bracket and that of the lock screw, and fit the camera onto the ceiling mount.

4. Rotate the camera.

Make sure that the camera is horizontal, then turn the camera clockwise until it stops. Ensure that the camera-clamping bracket is in line with the lock screw of the Ceiling Mount.

5. Tighten the lock screw.

Tighten the lock screw using a Phillips screwdriver.

CAUTION

If the lock screw is not tightened firmly, the camera may rattle or fall down. Be sure to tighten the lock screw firmly.

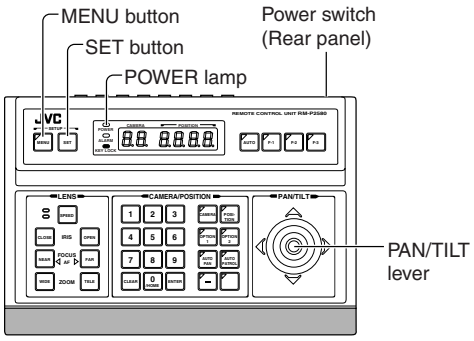
* To remove of the camera from the ceiling mount, reverse the steps ***1*** to ***5***.

Setting Up the Camera Using an RM-P2580

Setup Procedure

In systems using an RM-P2580 remote control unit, the menus for use during camera setup can be displayed on the remote control unit. (Please refer to the instructions for RM-P2580.)

<Setting the camera menus from an RM-P2580>



1. Set the Power switch on the rear panel of the RM-P2580 to ON.

The POWER lamp lights up.

2. Press and hold the MENU button for 3 seconds.

- The LED of the MENU button lights up.
- The SETUP menu of the remote control unit is displayed on the monitor connected to MONITOR OUTPUT-1.

cursor

```
                SETUP
  POSITION SETUP..
> CAMERA..
  CONTROL UNIT..
```

SETUP menu of the remote control unit

3. Move the PAN/TILT lever downward to move the cursor (>) to "CAMERA" in the menu.

- Tilting the lever upward (▲) moves the cursor upward.
- Tilting the lever downward (▼) moves the cursor downward.

4. Press the SET button.

- The MENU screen for the camera is displayed.
- Items followed by ".." have further submenus.

```
            ---MENU---
> CAM. FUNCTION1..
  CAM. FUNCTION2..
  CAM. TITLE/ALARM..
  CAM. VIDEO ADJUST..
  CAM. ALC      ..
  HOME MOTION DETECT..
  AUTO PAN/PATROL/TRACE..
  POSI.FUNCTION SET..
  FACTORY SETTINGS..
```

Indication of presence of submenus

SETUP menu of the camera

5. Tilt the PAN/TILT lever up or down to select an item.

6. Tilt the PAN/TILT lever to the left or right to change the value of the item.

- Tilting the lever toward the left (◀) decreases the value.
- Tilting the lever toward the right (▶) increases the value.

Change mark

```
     ---CAMERA FUNCTION---
>*V.PHASE            0
  POS.TITLE LOC.     UP-L
  FLIP               DIGITAL
  VAR.P/T SPEED      ON
  EASY AF            OFF
  D.ZOOM MAX         X2
  V.SHARPNESS        NORMAL
  TILT LIMIT         5°
  PRIVATE MASK..
```

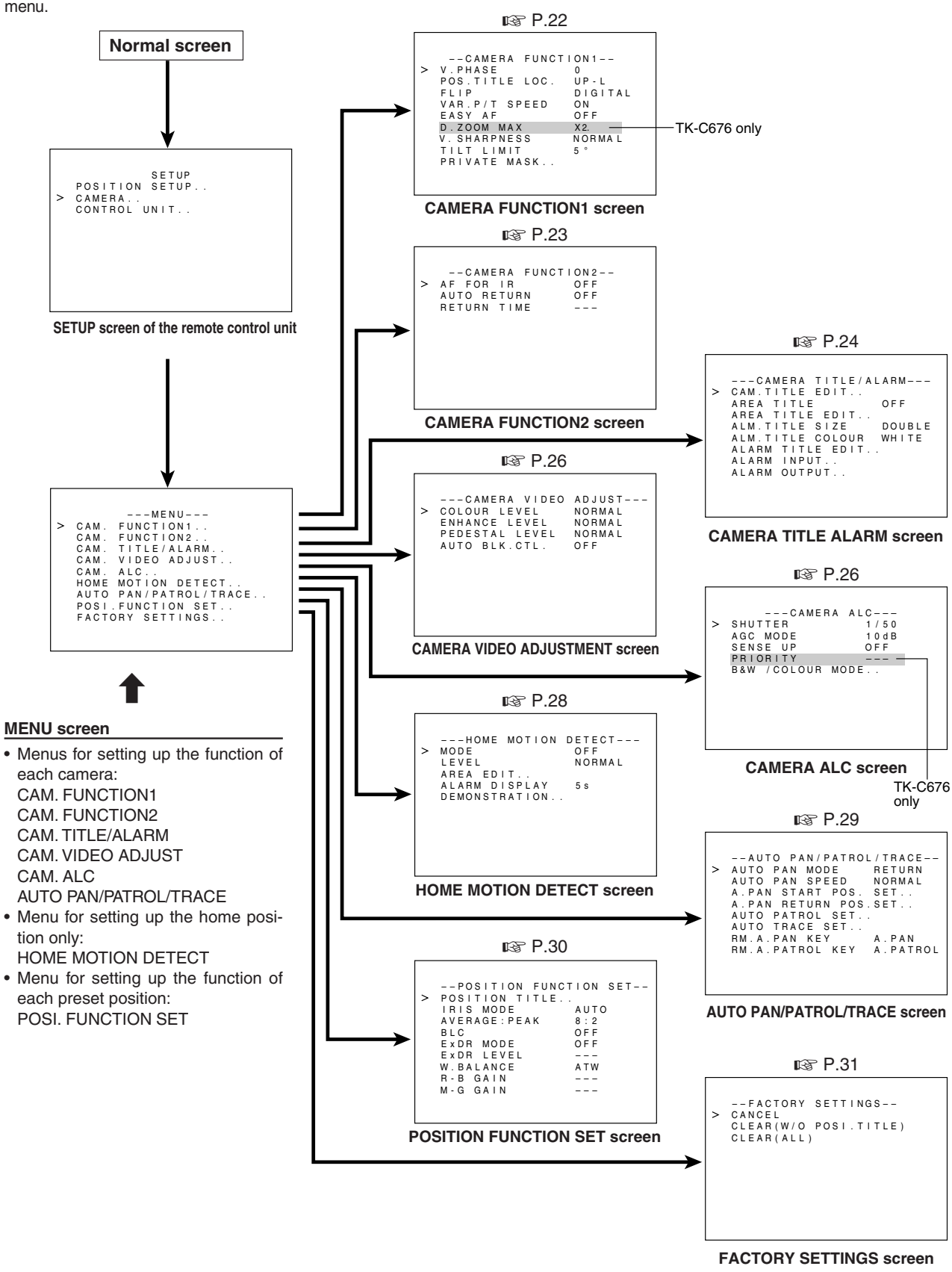
Example of a submenu

7. Press the MENU button.

After completing the setup of the menu items, press the MENU button to return to the previous menu screen.

Menu Screen Flow

The menu screens are arranged in a hierarchical structure as shown below. Refer to the respective reference pages for the details of each menu.



CAMERA FUNCTION1 Screen

This screen sets up the functions of the camera itself.

Item	Function & Setting	Initial Value
V. PHASE	This adjusts the vertical synchronization to those of other cameras when a selector switch for the synchronizing system on the Ceilling Mount is at LL. (50 Hz power region only.) **Setting values** : –156 to 0 to 156	**0**
POS. TITLE LOC.	Sets the location of the position title and area title in the monitor. **UP** : At the top of the screen. **DOWN** : At the bottom of the screen. **L** : In the left half of the screen. **C** : In the center of the screen. **R** : In the right half of the screen **Setting values** : UP-L, UP-C, UP-R, DOWN-L, DOWN-C, DOWN-R	**UP-L**
FLIP	When a tilting operation is started while this item is OFF, the camera will stop at the position where it is pointing straight downwards. When an object moves directly below the camera, the camera makes three movements ① points the straight downward ② pans 180° ③ points upwards. The FLIP function makes it possible to reduce these operations. Use this function when monitoring an object passing directly below the camera. **OFF** : Turns the FLIP function off. **DIGITAL** : Once the camera reaches a tilt of 135 degrees from horizontal after passing a position facing directly downwards, a picture is inverted both vertically and horizontally. **AUTO** : When the camera reaches a position facing directly downwards, it pans by 180° then stops.	**DIGITAL**
VAR. P/T SPEED	Under this function, the panning and tilting speeds are adjusted automatically relative to the zoom ratio of the lens. Setting the zoom lens towards TELE decreases the pan and tilting speeds. Setting the zoom lens towards WIDE end increases the pan and tilting speeds. Use this function when monitoring objects at differing zoom ratios. **OFF** : Turns this function off. **ON** : Turns this function on.	**ON**
EASY AF	When this item is set to ON, the auto focusing (AF) is activated automatically during manual pan/tilt and zoom operations. This function is convenient when frequent manual operations are expected as it eliminates the need to focus manually after every manual operation. **OFF** : Turns this function off. **ON** : Turns this function on. **— MEMO —** Auto focusing may sometimes be incapable of bringing certain objects into accurate focus. (☞ P. 7) In this case, use the manual focusing facility.	**OFF**
D. ZOOM MAX ***TK-C676 only**	When the zoom lens is set toward TELE, optical zooming is activated first and electronic zooming second. This function sets the maximum zoom ratio of the electronic zooming. **Setting values** : x1, x2, x4, x6, x8, x10. **— MEMO —** ● Note Picture quality deteriorates under electronic zooming as it is accompanied by digital image processing. ● An increase in the electronic zooming ratio may deviate the center of the image slightly toward the top left. This is due to the camera properties and is not a malfunction. ● Continuous operation from optical zooming to electronic zooming is not available. When optical zooming reaches the TELE end, press the TELE button again.	**x2**
V.SHARPNESS	This function sets sharpness in the vertical direction of the image. **NORMAL** : Normal sharpness. **HIGH** : High sharpness. **— CAUTION —** The following phenomena may be observed when HIGH is selected. This is not a malfunction. ● Horizontal stripes are observed on bright objects. ● Vague horizontal stripes are observed under low light conditions.	**NORMAL**
TILT LIMIT	**OFF** : Tilt angle not limited. Horizontal shooting is also possible. **1°-10°** : The camera may be operated manually to be tilted between the vertical position and preset limit at any position between 1° and 10° from the horizontal ceiling. **— MEMO —** ● Since the dome cover is of a hemispherical shape, the picture tends to become distorted at the edges of the hemisphere. When the camera is tilted and pointed in the horizontal direction, the picture may be out of focus because the camera captures the edges of the hemisphere. If this phenomenon causes concern, set the "TILT LIMIT" in order to avoid it. ● The tilting range, which is set as the TILT LIMIT can be recalled if it has been set as a function of the preset registration or as the Auto Trace setting operation.	**5°**

Item	Function & Setting	Initial Value
PRIVATE MASK..	This function grays out sections that are not to be displayed in the monitored picture area. The grayed out section moves accordingly when the camera is panned, tilted or when the zoom is adjusted. ☞ P.32, “PRIVATE MASK Setup”	—

CAMERA FUNCTION2 Screen

This screen sets up the functions of the camera itself.

Item	Function & Setting	Initial Value
AF FOR IR	For setting whether to enable auto focusing automatically when switching between the color and B&W modes. **OFF** : Turns this function off. **ON** : Turns this function on. **— MEMO —** As the camera is sensitive to both visible and near-IR light in the B&W mode, there may be cases in which switching the color mode to the B&W mode causes the image to become out of focus in certain light source conditions.	**OFF**
AUTO RETURN	If the camera is not operated for a certain time after it has been operated manually on RM-P2580, it will return to the status set at this item. The time setting for AUTO RETURN to activate can be set under “RETURN TIME”. When setting this function, make sure that the rear DIP SWITCH4 of RM-P2580 is set to “ON”. ☞ P. 41, “AUTO RETURN Setup” **OFF** : Turns this function off. **HOME** : Returns to the home position. **A.PAN KEY** : Returns to the operation set at “RM.A.PAN KEY” under [AUTO PAN/PATROL/TRACE Screen]. ☞ P. 29, “RM.A. PATROL KEY” **A.PATROL KEY**: Returns to the operation set at “RM.A.PATROL KEY” under [AUTO PAN/PATROL/TRACE Screen]. ☞ P. 29, “RM.A. PATROL KEY” **— MEMO —** This function is only available for the product with model name RM-P2580(A) as on the serial number plate. RM-P2580 without (A) will not function properly.	**OFF**
RETURN TIME	For setting the time to activate AUTO RETURN. Setting values :1 min, 2 min, 3 min, 5 min, 10 min, 20 min, 30 min, 60 min **— MEMO —** When “AUTO RETURN” is set to “OFF”, “---” will be displayed and setting will be disabled.	**1min**

CAMERA TITLE/ALARM Screen

This screen sets items related to titles and alarms.

Item	Function & Setting	Initial Value
CAM. TITLE EDIT ··	This sets the title which is displayed permanently at the bottom left of the picture. This title can be up to 16 characters in length. ☞ P. 33, "CAMERA TITLE Setup"	**—**
AREA TITLE	The 360° panning range can be divided into 16 areas and a title, of up to 16-character in length, can be set for each area. As the camera is panned manually these area titles are displayed. This function determines whether area titles are displayed or not. **ON** : Display area titles. **OFF** : Do not display area titles.	**OFF**
AREA TITLE EDIT ··	Sets the area titles. ☞ P. 34, "AREA TITLE Setup"	**—**
ALM. TITLE SIZE	Sets the size of the characters in the alarm title. (Displayed when an alarm is activated.) **NORMAL** : Same size as the characters used in the menu screen. **DOUBLE** : Double the size, both horizontally and vertically, of the characters used in the menu screen.	**DOUBLE**
ALM. TITLE COLOUR	Sets the color of the alarm titles. **Setting values**: WHITE, GREEN, YELLOW, CYAN	**WHITE**
ALARM TITLE EDIT ··	Sets the alarm titles. ☞ P. 35, "ALARM TITLE Setup"	**—**
ALARM INPUT ··	Sets the configuration of the alarm input terminals on the Ceiling Mount. The picture can be turned black-and-white mode when an alarm signal is input. ☞ P. 27, Item "B&W" **— MEMO —** ● When the item "B&W" is set to ALARM 1 to 4, [B&W] will be displayed at the corresponding ALARM IN 1 to 4 items and the setting cannot be varied.	**—**
ALARM IN1	Sets the camera position for alarm 1. When an alarm signal is input to the Alarm 1 input terminal, the camera moves to this set position. HOME means the home position and POS1 means position 1. **Setting values**: OFF, HOME, POS1 to POS99.	**OFF**
ALARM IN2	Sets the camera position for alarm 2. When an alarm signal is input to the Alarm 2 input terminal, the camera moves to this set position. HOME means the home position and POS1 means position 1. **Setting values**: OFF, HOME, POS1 to POS99.	**OFF**
ALARM IN3	Sets the camera position for alarm 3. When an alarm signal is input to the Alarm 3 input terminal, the camera moves to this set position. HOME means the home position and POS1 means position 1. **Setting values**: OFF, HOME, POS1 to POS99.	**OFF**
ALARM IN4	Sets the camera position for alarm 4. When an alarm signal is input to the Alarm 4 input terminal, the camera moves to this set position. HOME means the home position and POS1 means position 1. **Setting values**: OFF, HOME, POS1 to POS99.	**OFF**

Item	Function & Setting	Initial Value
ALARM INPUT ··	(Continued)	
POLARITY	Sets the polarity of the alarm signal inputs. **MAKE** : Alarm signals are transmitted when point of contact is made. **BREAK** : Alarm signals are transmitted when contact is broken. **— MEMO —** When an item for the B&W is set to the ALARM 1 to 4, it is set to the MAKE mode even if "BREAK" is displayed.	**MAKE**
DURATION	Sets the length of an alarm operation once an alarm signal has been transmitted. (Unit:second) **Setting values** : 5s, 6s, 7s, 8s, 9s, 10s, 15s, 20s, 30s or 60s **CAUTION** This item is invalid with the system using the RM-P2580. When using the RM-P2580, use item "ALARM TIME" instead.	**5s**
PRIORITY	Sets whether or not manual operation is accepted in case an alarm input is recognized during manual operation of the camera. **ALARM** : Manual operation is not accepted when there is an alarm input. (Priority on alarm) **MANUAL** : Manual operation is accepted even when there is an alarm input. (Priority on manual) **CAUTION** This item is invalid with a system using the RM-P2580. With this system, the ALARM input is permanently given the priority.	**ALARM**
ALARM OUTPUT ··	Sets the configuration of the alarm output terminals on the Ceiling Mount.	**—**
ALARM OUT1	Sets the configuration of the Alarm output 1 terminal. **OFF** : Does not output an alarm signal. **ALARM** : Alarm signal is output upon input of motion detection or an alarm signal. **B&W** : Alarm signal is output when the camera enters the B&W mode. **PRESET** : Alarm signal is output when a camera moves to a preset position. **AUX1 to 3** : Alarm signal is output when a corresponding AUX signal is input. (This is variable depending on the remote control unit in use.) **— MEMO —** ● Since the ALARM OUT 1 terminal employs a mechanical relay, its operating sound may seem noisy in a quiet environment. In this case, use the ALARM OUT 2 or 3 terminal instead. ● Sine the ALARM OUT 1 terminal employs a mechanical relay, the service life of the relay may be shortened if signals causing an alarm (motion detect signal, etc.) are applied frequently. The service life of a relay is 200,000 times of operation. The relay is a consumable part and a replacement is chargeable even before the termination of the warranty period.	**ALARM**
ALARM OUT2	Sets the configuration of the Alarm output 2 terminal. **OFF** : Does not output an alarm signal. **ALARM** : Alarm signal is output upon input of motion detection or an alarm signal. **B&W** : Alarm signal is output when the camera enters the B&W mode. **PRESET** : Alarm signal is output when a camera moves to a preset position. **AUX1 to 3** : Alarm signal is output when a corresponding AUX signal is input. (This is variable depending on the remote control unit in use.)	**ALARM**
ALARM OUT3	Sets the configuration of the Alarm output 3 terminal. **OFF** : Does not output an alarm signal. **ALARM** : Alarm signal is output upon input of motion detection or an alarm signal. **B&W** : Alarm signal is output when the camera enters the B&W mode. **PRESET** : Alarm signal is output when a camera moves to a preset position. **AUX1 to 3** : Alarm signal is output when a corresponding AUX signal is input. (This is variable depending on the remote control unit in use.)	**ALARM**

CAMERA VIDEO ADJUSTMENT Screen

This menu sets the picture signal of the camera, such as the color level and contour enhancement.

Item	Function & Setting	Initial Value
COLOUR LEVEL	Sets the color level of the picture signal. **To increase** : Set a smaller value. **To decrease** : Set a larger value. **Setting values** : –5 to NORMAL to 5.	**NORMAL**
ENHANCE LEVEL	Sets the contour enhancement which controls the sharpness of the monitor picture. **To soften the picture** : Set a smaller value. **To sharpen the picture** : Set a larger value. **Setting values** : –5 to NORMAL to 5.	**NORMAL**
PEDESTAL LEVEL	Sets the pedestal level (black level) of the video signal. **To darken the picture** : Set a smaller value. **To brighten the picture** : Set a larger value. **Setting values** : –5 to NORMAL to 5.	**NORMAL**
AUTO BLK. CTL	Use this function when darker parts of a picture are unclear even after the gain has been increased using the AGC (Auto Gain Control). **ON** : When the black level of the video signal is low, the pedestal level is increased automatically in order to improve the clarity of the darker parts. **OFF** : Turns this function off.	**OFF**

CAMERA ALC screen

This screen adjusts the settings of automated functions relating to picture brightness.

Item	Function & Setting	Initial Value
SHUTTER	Sets the electronic shutter speed. When the item “SENSE UP” is set to “x2” or higher, the, available settings for the SHUTTER are limited to 1/50 and 1/120. **Setting values** : 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 **— MEMO —** ● To reduce the flickering which occurs under fluorescent lighting, set the shutter speed to 1/50 if your local power supply frequency is 50 Hz and to 1/120 if it is 60 Hz. ● When a high shutter speeds are used, white stripes may be observed above and below bright objects. This is called the smear phenomenon and is usual to CCD cameras.	**1/50**
AGC MODE	Sets the maximum gain of the AGC (Auto Gain Control), which electronically increases the gain when the object is under low light conditions. **OFF** : Turns the AGC off. **10 dB** : According to the brightness of the object, gain is increased by up to 10 dB **20 dB** : According to the brightness of the object, gain is increased by up to 20 dB **SUPER** : Use this setting when brightness is still insufficient under the “20 dB” setting. **— MEMO —** ● When the item “B&W” is set to “AUTO”, [SUPER] is displayed when the item “AGC MODE” is set to “SUPER”, and [20 dB] is displayed for other settings. Increase the gain up to the value displayed. ● Note that increasing gain affects picture quality. ● When the “SUPER” setting is used, the AGC operation may take a while to adjust to sudden drastic changes in the brightness level.	**10 dB**

CAMERA ALC screen (Continued)

Item	Function & Setting	Initial Value
SENSE UP	This function is used to increase the sensitivity by extending the exposure time. When the object is dark, this function sets how high the level of sensitivity will automatically increase to. “x32” means that the sensitivity will be increased continuously up to 32 times the normal level. Increasing this value slows the shutter speed and motion may appear unnatural. When the item “SHUTTER” is set to “1/250” or more, the SENSE UP item does not work and “---“ is displayed as the item name in the CAMERA ALC Screen. **Setting values** **TK-C655**: OFF, x2 **TK-C676**: OFF, x2, x8, x16, x24, x32 **— MEMO —** ● As the setting of the “SENSE UP” function is increased, the picture may become rough and whitish, and subject to white blemishes. This is not a malfunction. ● When the setting of the “SENSE UP” function is not OFF, flicker may appear on the screen under fluorescent light or mercury lamps. This is due to the principles of the SENSE UP, and is not a malfunction. ● There may be cases where flicker can not be reduced even under the following conditions: 1) Shutter speed is set at 1/120 in areas where the commercial electric current frequency is 50 Hz. 2) The shutter speed is set at 1/50 in areas where the commercial electric current frequency is 60 Hz.	**OFF**
PRIORITY ***TK-C676 only**	When an object is dark, this functions sets whether priority during monitoring is placed on maintaining the motion of the camera or on picture quality. **MOTION** : Motion of the camera is given priority. When an object is dark, the AGC function is prioritized. This setting is suitable when objects are characterized by quick motion. **PICTURE** : Picture quality is given priority. When an object is dark, the SENSE UP function is prioritized. This setting is suitable when picture quality is important. **— MEMO —** ● When the “AGC MODE” and “SENSE UP” functions are both set to “OFF”, this function does not work and “---” is displayed as the item name in the CAMERA ALC Screen. ● When item “B&W” is set to AUTO, item “PRIORITY” is set to the MOTION priority mode and “---” is displayed.	**MOTION**
B&W/COLOUR MODE ..	This function sets the color modes to color or B&W. **— MEMO —** As the camera is sensitive to both visible and near-IR light in the B&W mode, there may be cases in which switching the color mode to the B&W mode causes the image to become out of focus in certain light source conditions. In this case, if the item “AF FOR IR” (☞ P. 23) under CAMERA FUNCTION2 Screen is set to “ON”, focus can be adjusted automatically.. Also, use an IR illumination as needed.	**NORMAL**
B&W	Switches the mode from color to B&W and vice-versa. **OFF** : Turns the B&W mode switching function off. **ON** : Sets the camera permanently to B&W mode. **AUTO** : The camera automatically switches to Color mode when the object is bright and to B&W mode when it is dark. **ALARM IN 1 to 4** : The camera switches to B&W mode when there is an alarm input from terminals Alarm 1 to Alarm 4. The B&W mode is set to ON when the contact is shorted (makes contact) and OFF when the contact is opened (breaks contact). **— MEMO —** ● To ensure switching between the color and B&W modes: Setting item “B&W” to AUTO allows the color and B&W modes to be switched according to the brightness of the object. However, this switching may sometimes not occur depending on the lighting condition and viewing angle. To ensure the switching, it is recommended to connect the signal from an external sensor (to be purchased separately by the user) to one of the ALARM input terminals of the camera and perform switching according to the sensor signal. ● In order to prevent hunting do not set the item “B&W” to AUTO when using an infrared lamp.	**OFF**
LEVEL	When the “B&W” function is set to “AUTO”, this function sets the signal level of the object at which the camera will automatically switch to B&W mode. **LOW** : The camera switches to B&W mode when the signal level of the object is low. **NORMAL** : The camera switches to B&W mode when the signal level of the object is normal. **HIGH** : The camera switches to B&W mode when the signal level of the object is high. **— MEMO —** When the item “B/W” is set to other than AUTO, “---“ is displayed and the settings to the item “LEVEL” cannot be varied.	**NORMAL**

CAMERA ALC screen (Continued)

Item	Function & Setting	Initial Value
B&W/COLOUR MODE ..		
LIGHT TYPE	Use this function to set the type of light illuminating the object in the B&W mode. **NORMAL** : Setting for normal lighting. **IR** : Setting for using IR lighting. **— MEMO —** If the IR setting is used under ordinary sunlight or fluorescent light, the switching between the color and B&W modes will not be performed correctly.	**NORMAL**

HOME MOTION DETECT Screen

When the camera is in the home position:
This screen sets the motion detect function, which outputs an alarm signal when motion is detected in the monitored picture. The alarm signal is output from the alarm output terminal on the terminal board.

Item	Function & Setting	Initial Value
MODE	Turns the motion detect function on and off. **OFF** : Defeats this function. **ON** : Activates this function.	**OFF**
LEVEL	Sets the level at which motion is identified. When the item “MODE” is set to “OFF”, this item does not work and “---” is displayed as the item name in the HOME MOTION DETECT Screen. • To detect motions characterized by large changes in the signal level : Decrease the setting value. • To detect motions characterized by small changes in the signal level : Increase the setting value. **Setting values** : -5 to NORMAL to 5 **— MEMO —** When the setting value of the detection level is increased, it sometimes causes the fluorescent lamp to flicker. Check the performance at the DEMONSTRATION item after changing the setting.	**NORMAL**
AREA EDIT..	Sets of the area of the picture within which the motion detect function operates. ☞ P. 36, “HOME MOTION DETECT Setup”	**—**
ALARM DISPLAY	Sets the length of an alarm signal and the alarm display output when motion is detected. When the item “MODE” is set to “OFF”, this item is does not work and “---” is displayed as the item name in the HOME MOTION DETECT Screen. **Setting values** : OFF, 5s, 6s, 7s, 8s, 10s, 15s, 20s, 30s, 60s **— MEMO —** When the item “MODE” is set to OFF, an alarm signal is output from the alarm output terminal but the alarm display is not shown in the picture. **CAUTION** This item is invalid with the system using the RM-P2580. When using the RM-P2580, use item “ALARM TIME” instead.	**5s**
DEMONSTRATION	This function is used to confirm the setup of the motion detect function.	**—**

— MEMO —

- Demonstration function is invalid when the camera is in a position other than the home position.
- The motion detect function is not activated when the camera is panned, tilted or zoomed in the home position.
- When the iris or focus operation is performed while the camera is in the home position, the motion detect function is not activated for 5 seconds after completion of the operation.
- During auto patrol, the motion detect function cannot be activated even when the camera is in the home position.

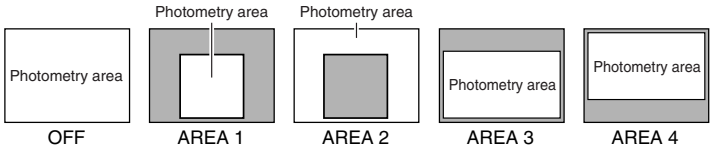
AUTO PAN/PATROL/TRACE Screen

This screen sets up the auto pan function for slow panning, the auto patrol function for switching of positions in sequence, and the auto trace function for the reproduction of the results of manual camera operations.

Item	Function & Setting	Initial Value
AUTO PAN MODE	Determines movement during auto panning. **RETURN** : Moves continuously between start and return positions. **RIGHT** : Clockwise rotation **LEFT** : Counterclockwise rotation. ☞ P. 37, “AUTO PAN Setup”	**RETURN**
AUTO PAN SPEED	Sets the rotation speed during auto panning. **LOW** : Low speed. **NORMAL** : Normal speed. **HIGH** : High speed.	**NORMAL**
A. PAN START POS. SET..	Sets the auto panning start position.	**—**
A. PAN RETURN POS. SET..	Sets the auto panning return position.	**—**
AUTO PATROL SET	Sets the configuration of the auto patrol function. ☞ P. 38, “AUTO PATROL Setup”	**—**
AUTO TRACE SET	Sets the configuration of the auto trace function. ☞ P. 39, “AUTO TRACE Setup”	**—**
RM. A. PAN KEY	Determines the function activated by pressing the AUTO PAN button on the remote control unit. **A. PAN** : Auto pan function. **A. PATROL** : Auto patrol function. **A. TRACE** : Auto trace function.	**A. PAN**
RM. A. PATROL KEY	Determines the function activated by pressing the AUTO PATROL button on the remote control unit. **A. PAN** : Auto pan function. **A. PATROL** : Auto patrol function. **A. TRACE** : Auto trace function.	**A. PATROL**

POSITION FUNCTION SET Screen

This screen sets the configurations of functions relating to pictures taken in preset positions.

Item	Function & Setting	Initial Value
POSITION TITLE··	Sets the titles for the 99 preset positions and the home position. Titles can be up to 16 characters in length and are shown in the display. ☞ P. 40, "POSITION TITLE Setup"	**—**
IRIS MODE	Determines the lens iris adjustment mode. **AUTO** : for auto iris adjustment under standard conditions. **AUTO+** : for auto iris adjustment under slightly brighter conditions. **AUTO–** : for auto iris adjustment under slightly dimmer conditions. **MANUAL** : for manual iris adjustment.	**AUTO**
AVERAGE : PEAK	Sets the method of exposure detection to the ratio between the average and peak values. **Large Average value** : Use this setting when areas other than the highlighted areas are filled with dark. (Example: 10:0) **Large Peak value** : Use this setting when highlighted areas appear as halation. (Example: 5:5) **Setting values** : 10:0, 9:1, 8:2, 7:3, 6:4, 5:5	**8:2**
BLC	Sets of area of back light compensation. Use this function when the object appears dark (under auto iris control) because of the presence of a bright light source behind it. This function make it possible to place the unnecessary light source outside the photometry area.  **— MEMO —** When "ExDR" is set to other than "ON", this item will be displayed as "---" and setting will be disabled.	**OFF**
ExDR MODE	The ExDR function synthesizes pictures captured at a shutter speed of 1/100 and those captured at higher shutter speeds to help monitor objects having large differences in brightness levels. When the "SHUTTER" function is set to "1/250" or a higher, this function does not work and "---" is displayed as the item name in the CAMERA ALC Screen. **OFF** : Turns the ExDR function off. **ON** : Turns the ExDR function on. **— MEMO —** ● When the ExDR function is on, flicker may appear on the screen under fluorescent light or mercury lamps. This is due to the principles of the ExDR, and is not a malfunction. ● There may be cases where flicker cannot be reduced even under the following conditions: 1) Shutter speed is set at 1/120 in areas where the commercial electric current frequency is 50 Hz. 2) The shutter speed is set at 1/50 in areas where the commercial electric current frequency is 60 Hz. ● When "BLC" is set to other than "OFF", this item will be displayed as "---" and setting will be disabled.	**OFF**
ExDR LEVEL	This function sets which section of the object is to be displayed in the easiest-to-view brightness level in the ExDR mode. To make a **low-light** section of the object easy to view: Increase the level. To make a **highlighted** section of the object easy to view: Decrease the level. **Setting values**: –5 to NORMAL to 5 **— MEMO —** ● When the difference in brightness between objects is large, the picture may not change even when the ExDR LEVEL is varied. This is due to the characteristics of the camera and is not a malfunction. ● When the item "SHUTTER" is set to 1/250 or higher, "---" is displayed and the settings to the item "ExDR LEVEL" cannot be carried out. ● When the item "ExDR MODE" is set to OFF, the settings for the item "ExDR LEVEL" cannot be varied.	**NORMAL**

POSITION FUNCTION SET Screen (Continued)

This screen sets the configurations of functions relating to pictures taken in preset positions.

Item	Function & Setting	Initial Value
W. BALANCE	Determines the setting of the white balance adjustment. The white balance can be adjusted for lighting conditions with color temperatures from 2500K to 8000K. **ATW** : Auto-Tracking White balance mode, adjusts the white balance automatically according to the color temperature of the lighting conditions. When ATW is set, "---" is displayed for the items "R-B GAIN" and "M-G GAIN", so that the color phase adjustment cannot be carried out. **AWC** : Auto White Control mode, which displays "PUSH SET → ADJ. STRAT". When the SET button is pressed, AWC is activated and thet white balance adjustment starts. If the AWC is activated while the screen is B&W the LOW LIGHT ERROR will be displayed. This is not abnormal.	**ATW**
R-B GAIN	Adjusts the phases of R (Red) and B (Blue) under AWC mode. • **To enhance blue**: Decrease the value. • **To enhance red** : Increase the value. **Setting values** : 0 to 255	**95**
M-G GAIN	Adjusts the phases of M (Magenta) and G (Green) under AWC mode. • **To enhance green** : Decrease the value. • **To enhance magenta** : Increase the value. **Setting values** : 0 to 255	**63**

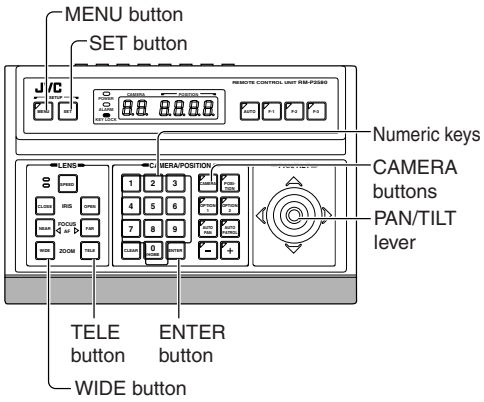
FACTORY SETTINGS screen

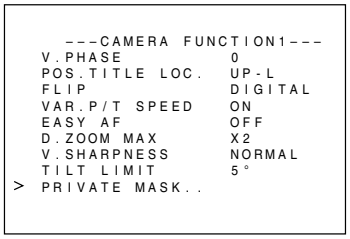
This screen resets values to their factory settings.

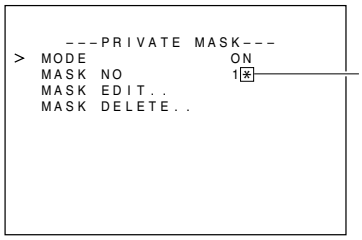
Item	Function & Setting	Initial Value
FACTORY SETTINGS	Resets all settings in the above menus to their initial factory settings. Pressing the SET button displays "EXECUTING" (about 15 seconds) and resets the settings to the factory settings. **CANCEL** : Does not alter current values. **CLEAR (W/O POS. TITLE)** : Resets the settings to the initial, factory settings. However, the set positions, the setting data of each position and the titles are not reset to the factory settings. **CLEAR (ALL)** : Resets all settings including titles and stored positions.	**—**

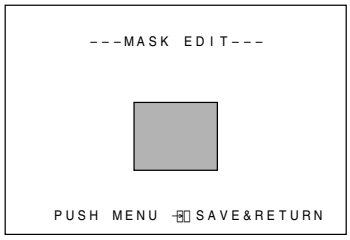
PRIVATE MASK Setup

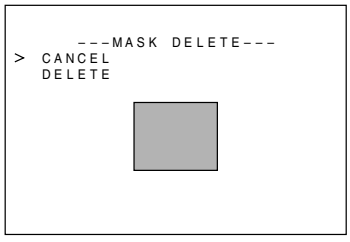
Use the PRIVATE MASK screen to set up the private mask function, which grays out areas that are not required to be included in the monitored picture. Up to four private masks can be set per screen, and up to eight private masks can be set in total.











1. Select the camera. (☞ RM-P2580 Instruction manual)
CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Select the angle of view.
Use the PAN/TILT lever and the lens button to set the viewing angle to which the private mask function is to be applied.

3. Display the SETUP menu on the camera.
(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select “CAMERA” using the PAN/TILT lever → SET button.

4. Tilt the PAN/TILT lever up or down to move the cursor (>) to “CAMERA FUNCTION1” and press the SET button.
The CAMERA FUNCTION1 menu is displayed.

5. Move the cursor (>) to “PRIVATE MASK” and press the SET button.
The PRIVATE MASK submenu is displayed.

6. Select the private mask function ON or OFF.
Turn the private mask function on or off by setting the “MODE” item in the submenu to ON or OFF (Factory setting: OFF)

7. Select the mask number.
Select the private mask number from MASK NO. 1 to 8 and move the cursor on to the item “MASK EDIT.” Of these, a maximum of 4 can be set within one picture.
If an already set mask number is selected, the (∗) mark will be displayed.

8. Edit the masking area.
- Move the cursor to “MASK EDIT” and press the SET button to display the MASK EDIT screen. (The masked area will be displayed as a grayed-out area.)
- Tilt the PAN/TILT lever to move the grayed-out area to the center of the area to be masked.
- Press the TELE and WIDE buttons to set the masked area size.

CAUTIONS
- It is not possible to set five or more masks in adjacent areas. (Even when this is attempted, the masked area that is required to be set will not be displayed.)
- MASK cannot be set at lower than approx. 45° in the horizontal direction. (The masks for new settings are not displayed.)

9. Press the MENU button.
- The screen returns to the “PRIVATE MASK menu”.
- To delete a private masked area, select “MASK DELETE”, move the cursor to “DELETE” and press the SET button.
  The PRIVATE MASK menu reappears after the data has been deleted.
  To cancel deletion, select “CANCEL” and press the SET button.

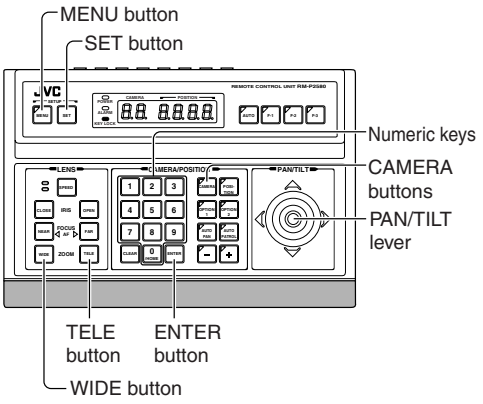
10. Repeat steps *7* to *9* for each additional masked area.

11. Press the MENU button.
The screen returns to the “CAMERA FUNCTION1” menu.

— CAUTIONS
- There may be cases, depending on the camera direction and zoom position in which an object is captured from within the private mask area. After setting the private mask, be sure to vary the camera direction and zoom position in order to confirm that the camera does not capture objects from within this area.
- The private MASK function cannot be carried out during the initializing process immediately after the power is turned on.
- If a high value is set in item “SENSE UP”, the masked object may be displayed depending on the camera orientation even when the object is located within the private masking area. (TK-C676 only)
- If the picture being shot contains 5 or more masks, the entire picture is masked.

CAMERA TITLE Setup

Use the CAMERA TITLE screen to set the title of each camera.
Titles can be up to 16 characters in length and are displayed at the bottom left of the picture.



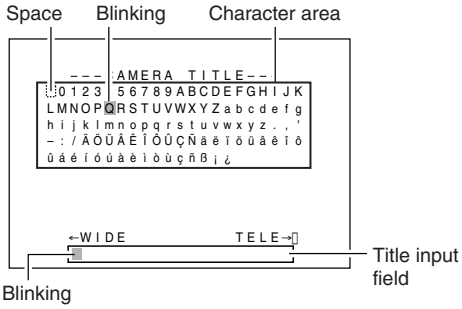
Cursor

```
        ---MENU---
  CAM. FUNCTION1..
  CAM. FUNCTION2..
> CAM. TITLE/ALARM..
  CAM. VIDEO ADJUST..
  CAM. ALC..
  HOME MOTION DETECT..
  AUTO PAN/PATROL/TRACE..
  POSI.FUNCTION SET..
  FACTORY SETTINGS..
```

SETUP menu display on the camera

```
  ---CAMERA TITLE/ALARM---
> CAM.TITLE EDIT..
  AREA TITLE          OFF
  AREA TITLE EDIT..
  ALM.TITLE SIZE      DOUBLE
  ALM.TITLE COLOUR    WHITE
  ALARM TITLE EDIT..
  ALARM INPUT..
  ALARM OUTPUT..
```

TITLE ALARM menu



CAMERA TITLE screen

1. Select the camera. (☞ RM-P2580 Instruction manual)

CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.

(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select “CAMERA” with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to “CAMERA TITLE/ALARM” and press the SET button.

The TITLE/ALARM menu is displayed.

4. Ensure that the cursor (>) is located on “CAMERA TITLE” and press the SET button.

- The CAMERA TITLE screen is displayed.
- The first characters in the character area and title input field blink to indicate that the system is ready for title input.

5. Use the PAN/TILT lever to select the first character of the title from the character area.

- The character being selected blinks.
- The selected character is displayed in the title input field.

6. Press the TELE button.

- The first character of the title is input, and the camera gets ready for the input of the second character.
- If the WIDE button is pressed, the blinking position in the title input field moves to the left. Use this facility to correct previously input characters.

7. Repeat steps *5* and *6* for each title character.

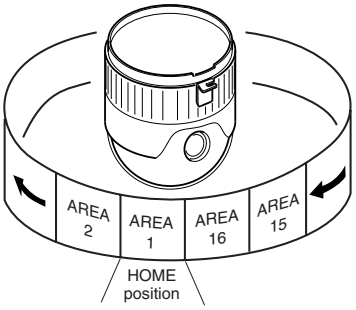
Complete the input of the title for the selected camera in this way.

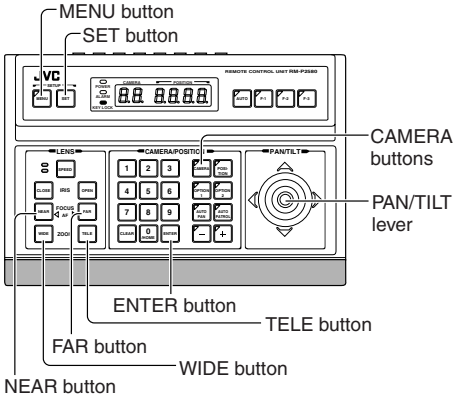
8. Press the MENU button.

- The screen returns to the previous menu.
- To set the titles for multiple cameras, repeat steps ***1*** to ***7*** for each camera.

AREA TITLE Setup

The 360° panning range of the camera can be divided into 16 equally sized areas and an area title can be set for each area. Titles can be of up to 16 characters in length and are displayed in the picture as the camera is panned manually. (Area title display ON/OFF: ☞ P. 24, Item “AREA TITLE”. Area title display position ☞ P. 22, Item “POS. TITLE. LOC.”)



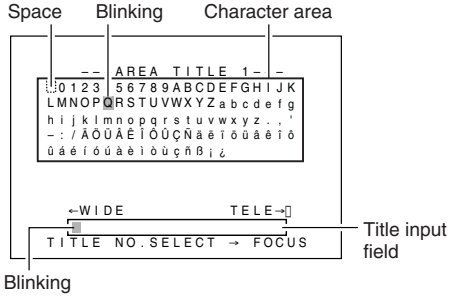



```
        ---MENU---
  CAM. FUNCTION1..
  CAM. FUNCTION2..
> CAM. TITLE/ALARM..
  CAM. VIDEO ADJUST..
  CAM. ALC..
  HOME MOTION DETECT..
  AUTO PAN/PATROL/TRACE..
  POSI.FUNCTION SET..
  FACTORY SETTINGS..
```

SETUP menu display on the camera

```
  ---CAMERA TITLE/ALARM---
  CAM.TITLE EDIT..
  AREA TITLE        OFF
> AREA TITLE EDIT..
  ALM.TITLE SIZE    DOUBLE
  ALM.TITLE COLOUR WHITE
  ALARM TITLE EDIT..
  ALARM INPUT..
  ALARM OUTPUT..
```

TITLE ALARM screen



AREA TITLE screen

1. Select the camera. (☞ RM-P2580 Instruction manual)

CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.

(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select “CAMERA” with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to “CAMERA TITLE/ALARM” and press the SET button. The TITLE/ALARM menu is displayed.

4. Move the cursor (>) to “AREA TITLE EDIT” and press the SET button.

- The AREA TITLE 1 screen is displayed.
  AREA TITLE 1 corresponds to the home position.
- The first characters in the character area and title input field blink to indicate that the system is ready for a title input.

5. Use the PAN/TILT lever to select the first character of the title from the character area.

- The character being selected blinks.
- The selected character is displayed in the title input field.

6. Press the TELE button.

- The first character of the title is input, and the system gets ready for the input of the second character.
- If the WIDE button is pressed, the blinking position in the title input field moves to the left. Use this facility to correct previously input characters.

7. Press the FAR button.

- The camera pans to the next area and the AREA TITLE 2 screen is displayed.
- If the NEAR button is pressed, the camera pans back to the previous area and the previous AREA TITLE 1 screen is displayed.

8. Repeat steps *5* to *7* for each area title.

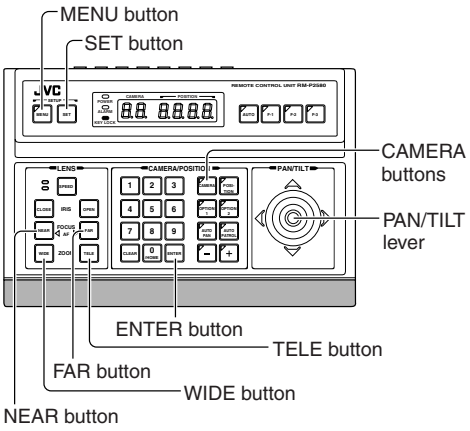
Complete the input of all area titles in this way.

9. Press the MENU button.

- The screen returns to the previous menu.

ALARM TITLE Setup

Use the ALARM TITLE screen to set the alarm titles to be displayed when an alarm signal is transmitted.
Up to 10 alarm titles (ALARM TITLE 1 to 10) can be set and each title can be up to 12 characters in length.

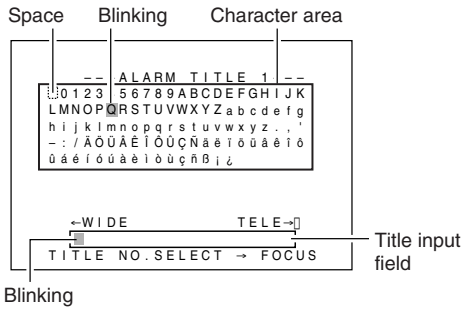



```
          ---MENU---
   CAM. FUNCTION1..
   CAM. FUNCTION2..
   CAM. TITLE/ALARM..
   CAM. VIDEO ADJUST..
   CAM. ALC..
>  HOME MOTION DETECT..
   AUTO PAN/PATROL/TRACE..
   POSI.FUNCTION SET..
   FACTORY SETTINGS..
```

SETUP menu display on the camera

```
   ---CAMERA TITLE/ALARM---
   CAM.TITLE EDIT..
   AREA TITLE          OFF
>  AREA TITLE EDIT..
   ALM.TITLE SIZE      DOUBLE
   ALM.TITLE COLOUR    WHITE
   ALARM TITLE EDIT..
   ALARM INPUT..
   ALARM OUTPUT..
```

TITLE/ALARM menu



ALARM TITLE screen

1. Select the camera. (☞ RM-P2580 Instruction manual)

CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.

(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select "CAMERA" with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to "CAMERA TITLE/ALARM" and press the SET button.

The TITLE/ALARM screen is displayed.

4. Move the cursor (>) onto the item "ALARM TITLE EDIT" and press the SET button.

- The ALARM TITLE 1 menu is displayed.
- The first characters in the character area and title input field blink to indicate that the system is ready for a title input.

5. Use the PAN/TILT lever to select the first character of the title from the character area.

- The character being selected blinks.
- The selected character is displayed in the title input field.

6. Press the TELE button.

- The first character of the title is input, and the system gets ready for the input of the second character.
- If the WIDE button is pressed, the blinking position in the title input field moves to the left. Use this facility to correct previously input characters.

7. Press the FAR button.

- The next ALARM TITLE screen is displayed.
- If the NEAR button is pressed, the previous ALARM TITLE screen is displayed.

8. Repeat steps *5* to *7* for each alarm title.

Complete the input of all the alarm titles (ALARM TITLE 1 to 10) in this way.

9. Press the MENU button.

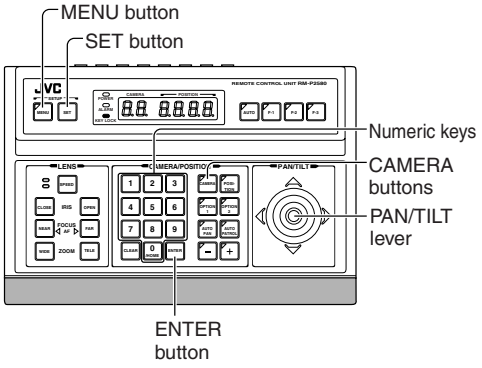
- The screen returns to the previous menu.

RM-P2580 units need to be configured to display Alarm Titles. Use the RM-P2580 menu settings to do this:

1. Press and hold the MENU button for 3 seconds to display the SETUP screen on the remote control unit.
2. First select the CONTROL UNIT screen, then the DATA I/O screen and finally the INPUT ASSIGNMENT screen.
3. Select "ALARM TEXT" then "EDIT 1", the alarm title set as ALARM TITLE 1 is displayed on the monitor.
   * The alarm signals are input into the DATA I/O terminals on the rear panel of the RM-P2580.

HOME MOTION DETECT Setup

Use the HOME MOTION DETECT screen to set the areas to be excluded from the target area of the motion detect function. (which outputs an alarm upon detection motion in the monitored picture)

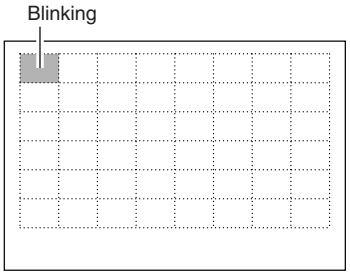



```
          ---MENU---
   CAM. FUNCTION1..
   CAM. FUNCTION2..
   CAM. TITLE/ALARM..
   CAM. VIDEO ADJUST..
   CAM. ALC..
>  HOME MOTION DETECT..
   AUTO PAN/PATROL/TRACE..
   POSI.FUNCTION SET..
   FACTORY SETTINGS..
```

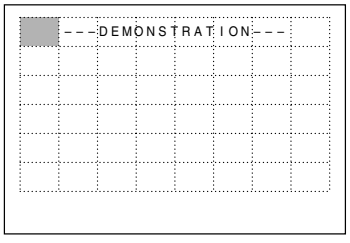
SETUP menu display on the camera

```
   ---HOME MOTION DETECT---
   MODE              OFF
   LEVEL             ---
>  AREA EDIT..
   ALARM DISPLAY     5s
   DEMONSTRATION..
```

HOME MOTION DETECT menu



AREA EDIT screen



DEMONSTRATION screen

1. **Select the camera. (☞ RM-P2580 Instruction manual)**
CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. **Display the SETUP menu on the camera.**
(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select "CAMERA" with the PAN/TILT lever → SET button.

3. **Tilt the PAN/TILT lever up or down to move the cursor (>) to "HOME POSITION DETECT" and press the SET button.**
The HOME POSITION DETECT menu is displayed.
The camera moves to the home position.

4. **Move the cursor (>) to "AREA EDIT" and press the SET button.**
The AREA EDIT setting screen is displayed. (The frame display position is moved slightly upward from the center of the screen.)

5. **Use the PAN/TILT lever to select the area to be excluded from the motion detection target area.**
The area blinking in white is moved by the operation of the lever.

6. **Press the SET button.**
- The area to be excluded is set and blinks in gray.
- To cancel, press the SET button again.
- When the setting is canceled, the gray blinking changes to white blinking.

7. **Repeat steps *5* and *6* for each area to be excluded from the motion detection target area.**
Complete the setup of all excluded areas in this way.

8. **Press the MENU button.**
The screen returns to the previous menu.

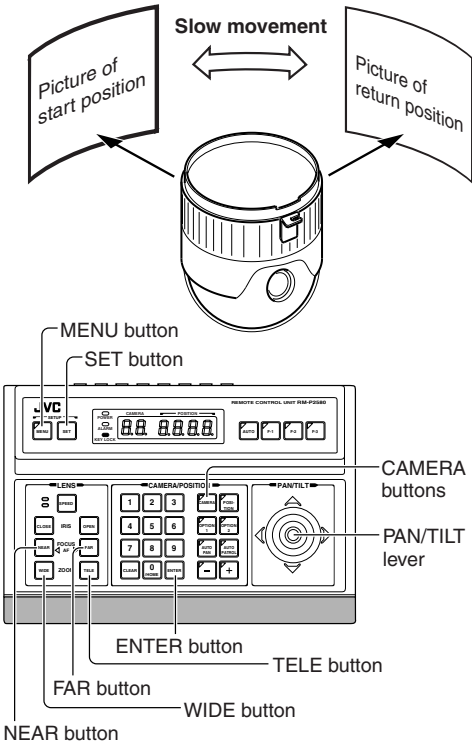
— MEMO

The positions of areas in the picture are reference positions. Check the actual positions in the actual picture.
The areas set to be excluded from the motion detection target area can be confirmed in the DEMONSTRATION screen.

The motion detect function is not intended to prevent fire or theft. Therefore, JVC will not assume any liabilities for accidents and damage related to the use of this function.

AUTO PAN Setup

Use the AUTO PAN screen to set the auto pan function, which allows the camera to be revolved slowly in a horizontal direction) The auto pan function has three modes, the RETURN mode for continual movement between two positions, the RIGHT mode for clock-wise rotation and the LEFT mode for counterclockwise rotation.




```
---AUTO PAN/PATROL/TRACE---
  AUTO PAN MODE      RETURN
  AUTO PAN SPEED     NORMAL
> A.PAN START POS.  SET..
  A.PAN RETURN POS. SET..
  AUTO PATROL SET..
  AUTO TRACE SET..
  RM A.PAN KEY       A.PAN
  RM A.PATROL KEY    A.PATROL
```

AUTO PAN/PATROL/TRACE menu

```
---START POSITION SET---

PUSH MENU → SAVE&RETURN
```

START POSITION SET screen

```
---RETURN POSITION SET---

PUSH MENU → SAVE&RETURN
```

RETURN POSITION SET screen

1. Select the camera. (☞ RM-P2580 Instruction manual)
CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.
(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select "CAMERA" with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to "AUTO PAN/PATROL TRACE" and press the SET button.
The AUTO PAN/PATROL/TRACE menu is displayed.

4. Set the auto pan mode and speed.
- Select the "AUTO PAN MODE" item and then select either RETURN (continual movement between two positions), RIGHT(clockwise rotation) or LEFT (counterclockwise rotation).
- Select the "AUTO PAN SPEED" item and then select either LOW, NORMAL or HIGH.

5. Move the cursor (>) to "A. PAN START POSITION SET" and press the SET button.
The START POSITION SET screen is displayed.

6. Adjust the viewing angle of the start position.
- Use the PAN/TILT lever, FOCUS button and ZOOM button to adjust the viewing angle.
- Tilting of the camera and changes in lens controls such as the FOCUS and ZOOM settings are not available at the return position.

7. Press the MENU button.
The AUTO PAN/PATROL/TRACE screen shows "DATA SAVED" to indicate that the viewing angle for the start position has been registered.

8. Move the cursor (>) to "A. PAN RETURN POSITION SET" and press the SET button. (RETURN mode only)
The RETURN POSITION SET screen is displayed.

9. Adjust the viewing angle of the return position. (RETURN mode only)
Pan the camera in the right and left directions and adjust the viewing angle.

10. Press the MENU button.

MEMO

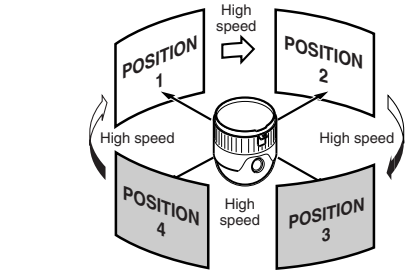
- It is not possible to tilt the camera or change the lens settings at the return position.
- If the SET or MENU buttons are pressed while the camera is moving, the correct settings cannot be registered. Make sure that the camera is stationary before pressing the SET or MENU buttons.

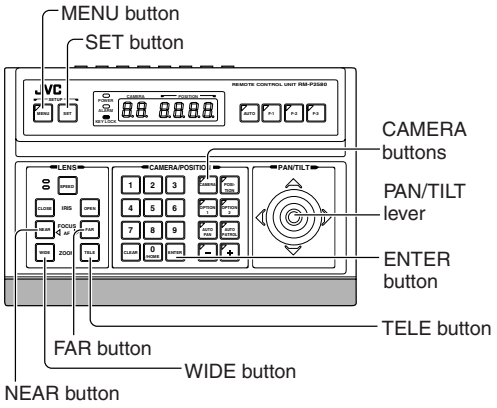
- The screen returns to the previous menu.

After the above setup, auto panning of the camera can be started by pressing the AUTO PAN button on the RM-P2580.
☞ "Auto Panning" in the RM-P2580 Instruction manual.

AUTO PATROL Setup

Use the AUTO PATROL screen to set the configuration of the auto patrol function, which moves the camera between several positions at a high speed.
Patrol positions 1-100 can be set in each of three modes (MODES 1 to 3). It is recommended that these three modes be set the according to the day of the week or the time of day. For example: MODE 1 for nighttime and MODE 2 for daytime.






```
---AUTO PAN/PATROL/TRACE---
> AUTO PAN MODE      RETURN
  AUTO PAN SPEED     NORMAL
  A.PAN START POS.   SET..
  A.PAN RETURN POS.  SET..
  AUTO PATROL SET..
  AUTO TRACE SET..
  RM A.PAN KEY       A.PAN
  RM A.PATROL KEY    A.PATROL
```

AUTO PAN/PATROL/TRACE menu

```
   ---AUTO PATROL MODE1---
>  PATROL1    HOME    10s
   PATROL2    POS1    10s
   PATROL3    POS2    10s
   PATROL4    POS3    10s
   PATROL5    POS4    10s
   PATROL6    POS5    10s
   PATROL7    POS6    10s
   PATROL8    POS7    10s

  FWD/BWD→ZOOM MODE→FOCUS
```

AUTO PATROL MODE 1 screen
(Example showing PATROL Nos.1 to 8)

```
   ---AUTO PATROL MODE1---
>  PATROL9    POS8    10s
   PATROL10   POS9    10s
   PATROL11   POS10   10s
   PATROL12   POS11   10s
   PATROL13   POS12   10s
   PATROL14   POS13   10s
   PATROL15   POS14   10s
   PATROL16   POS15   10s

  FWD/BWD→ZOOM MODE→FOCUS
```

AUTO PATROL MODE 1 screen
(Example showing PATROL Nos. 9 to 16)

1. Select the camera. (☞ RM-P2580 Instruction manual)
CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.
(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select “CAMERA” with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to “AUTO PAN/PATROL TRACE” and press the SET button.
The AUTO PAN/PATROL/TRACE menu is displayed.

4. Move the cursor (>) to “AUTO PATROL SET” and press the SET button.
The AUTO PATROL MODE 1 screen is displayed.

5. Tilt the PAN/TILT lever to move the cursor (>) to the PATROL position to be set.
- To display the next page (PATROL positions 9 to 19), press the TELE button.
- To display the previous page, press the WIDE button.

6. Set a patrolled position.
POSITION button → Numeric key (position number) → ENTER button.
- At the factory settings, positions PATROL 1 to 100 are set to HOME to 99 in that order.

7. Set the length of time a camera will stay in each position.
- Use the PAN/TILT lever to the left or right to set the time period.
- Available setting values: SKIP, 5s, 10s, 20s, 30s, 45s, 1min, 2min. (Selecting “SKIP” skips that position and moves to the next position.)
- The factory setting is “10s” for all positions.

8. Repeat steps *5* to *7* for each patrolled position.
- Set the patrolled positions and time periods of all patrol numbers in this way.

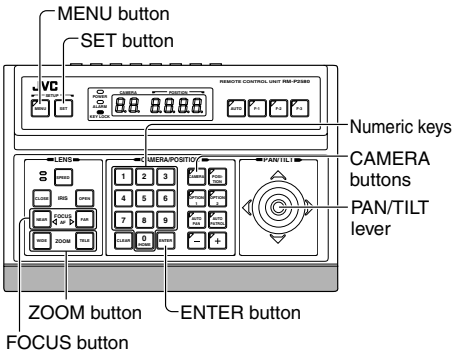
9. Change the auto patrol mode.
- Press the FAR or NEAR buttons to change the mode.
- After changing to a new mode, repeat steps ***5*** to ***8***.

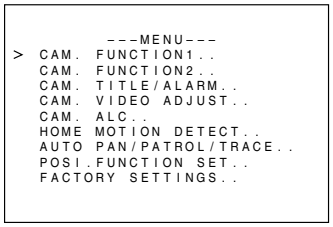
10. Press the MENU button.
- The screen returns to the previous menu.

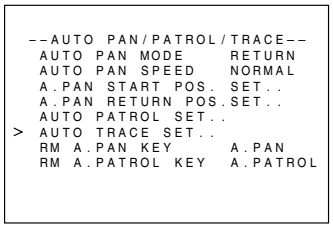
- After the above setup, auto patrol of the camera can be started by pressing the AUTO PATROL button on the RM-P2580.
- To change the auto patrol mode after the above setup, display the AUTO PATROL MODE screen and press the FAR or NEAR buttons.
- The auto patrol function can only be set from an RM-P2580. Note that it differs to auto sequence operations available with other remote control units.

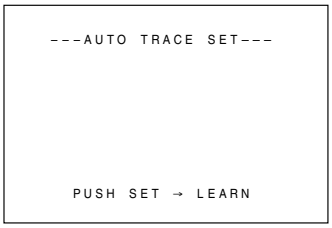
AUTO TRACE Setup

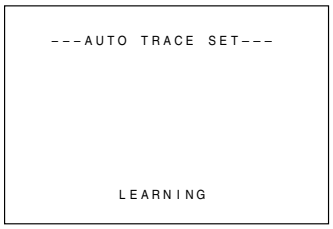
Use the AUTO TRACE screen to set the auto trace function, which stores and reproduces the actions of a manual camera operation (up to 30 seconds).











1. Select the camera. (☞ RM-P2580 Instruction manual)
CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.
(☞ P. 20, steps *1* to *4*)
MENU button (3 sec.) → Select "CAMERA" with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to "AUTO PAN/PATROL TRACE" and press the SET button.
The AUTO PAN/PATROL/TRACE menu is displayed.

4. Move the cursor (>) to "AUTO TRACE SET" and press the SET button.
The AUTO TRACE SET screen is displayed.

5. Set the patrol start position.
Using the PAN/TILT lever and the ZOOM and FOCUS buttons, set the camera position at which the auto trace function is to be started.

6. Press the SET button (to start memorization of manual camera operations).
- Auto trace starts. Operate the camera using the PAN/TILT lever, and the ZOOM and FOCUS buttons.
- The Auto trace function can memorize camera operations for up to 30 seconds, during this period "LEARNING" is displayed in the screen.
- Storage finishes automatically after 30 seconds.
- Perform step *7* only when finishing the storage but before 30 seconds elapses.

7. Press the SET button to end the memorization of manual camera operations.
- Auto trace ends and the screen returns to the AUTO PAN/PATROL/TRACE menu.

8. Press the MENU button.
- The screen returns to the AUTO PAN/PATROL/TRACE menu.

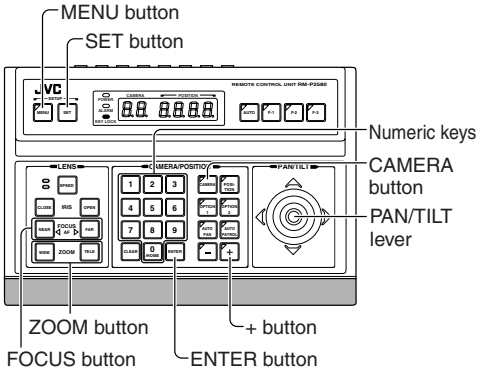
— MEMO
- The PAN/TILT position in the item "AUTO TRACE" function can be set and operated only between 0° and 90° (it cannot be set and operated between 90° and 180°) even when the item "FLIP" is set to DIGITAL.
- The electronic zoom can be set up to x2. (It is not permitted to set an electronic zoom ratio of more than x2.)

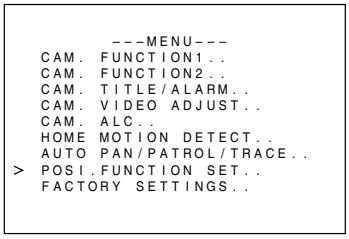
RM-P2580 units need to be configured to use replay movements stored by the Auto Trace function Use the AUTO PAN or AUTO TRACE buttons on the RM-P2580 to do this:

To let the camera execute reproduction of the auto trace operation, it is required to set the auto trace function in the AUTO PAN or AUTO TRACE button of the RM-P2580.
☞ P. 29, Items "RM. A. PAN KEY" and "RM. A. PATROL KEY".
When the button to which the auto trace function is set is pressed, the lamp in the button lights up and auto trace reproduction starts.
The auto trace reproduction will repeat continually with a pause of 30 seconds between each operation.
To end the auto trace reproduction, press the button to which the auto trace function is set again so that the lamp in the button turns off.

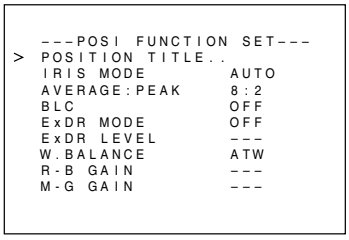
POSITION TITLE Setup

Use the POSITION TITLE screen to set the title of each camera position.
Each camera position can be given a title of up to 16 characters.

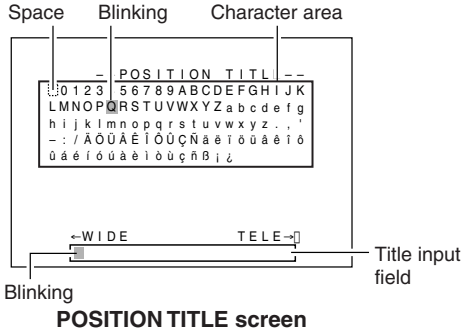




SETUP menu display on the camera



POSITION FUNCTION SET screen



POSITION TITLE screen

<Be sure to set the positions before proceeding to the position title setup.>

1. Select the camera. (☞ RM-P2580 Instruction manual)

CAMERA button → Numeric key (camera number) → ENTER button.
The picture of the selected camera is output.

2. Display the SETUP menu on the camera.

(☞ P. 20, steps ***1*** to ***4***)
MENU button (3 sec.) → Select "CAMERA" with the PAN/TILT lever → SET button.

3. Tilt the PAN/TILT lever up or down to move the cursor (>) to "POSI. FUNCTION SET" and press the SET button.

The POSITION FUNCTION SET menu is displayed.

4. Ensure that the cursor (>) is located onto the item "POSITION TITLE" and press the SET button.

- The POSITION TITLE screen is displayed.
- The first characters in the character area and title input field blink to indicate that the system is ready for a title input.

5. Select a preset position. (☞ RM-P2580 Instruction manual)

POSITION button→Numeric key (position number)→ENTER button.
- The picture of the selected camera position is output.
- The next position can be selected simply by pressing the "+" button.

6. Use the PAN/TILT lever to select the first character of the title from the character area.

- The character being selected blinks.
- The selected character is displayed in the title input field.

7. Press the TELE button.

- The first character of the title is input, and the system gets ready for the input of the second character.
- If the WIDE button is pressed, the blinking position in the title input field moves to the left. Use this facility to correct previously input characters.

8. Repeat steps *5* to *7* for each title character.

- When the next position is selected, "DATA SAVED" is displayed for 3 seconds and the previous position tile is stored in the memory.
- Complete the input of all position titles in this way.

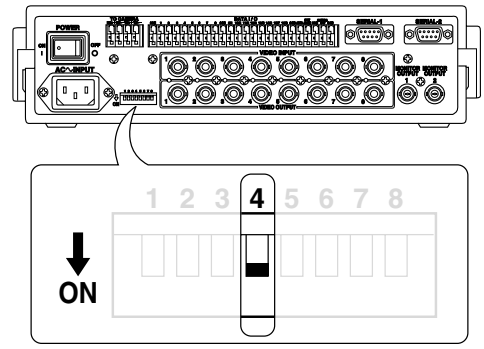
9. Press the MENU button.

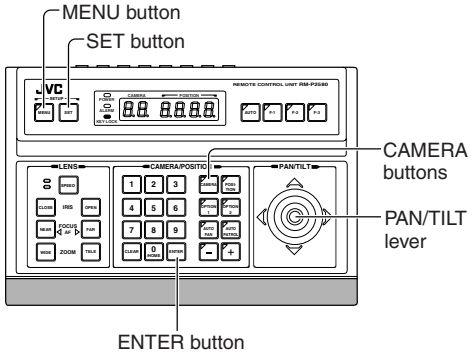
The screen returns to the previous menu.

AUTO RETURN Setup

If the camera is not operated at the preset time after it has been operated manually, it will automatically return to the status set previously.

< RM-P2580 rear >






```
          ---MENU---
   CAM. FUNCTION1..
>  CAM. FUNCTION2..
   CAM. TITLE/ALARM..
   CAM. VIDEO ADJUST..
   CAM. ALC..
   HOME MOTION DETECT..
   AUTO PAN/PATROL/TRACE..
   POSI.FUNCTION SET..
   FACTORY SETTINGS..
```

SETUP menu display on the camera

```
   ---CAMERA FUNCTION2---
>  AF FOR IR          OFF
   AUTO RETURN        OFF
   RETURN TIME        ---
```

CAMERA FUNCTION2 screen

***Before setting AUTO RETURN, make sure to set the rear panel DIP Switch of RM-P2580.**

1. Turn off the power of RM-P2580.
2. Set rear DIP Switch4 of RM-P2580 to “ON”.
3. Turn on the power of RM-P2580 again.

1. Display the SETUP menu on the camera. (☞ P.20, steps 1 to 4)

- MENU button(3sec) → Select “CAMERA” with the PAN/TILT lever → SET button.

2. Display the CAMERA FUNCTION2 screen.

- Tilt the PAN/TILT lever up or down to move the cursor (>) to “CAMERA FUNCTION2” and press the SET button.
- The CAMERA FUNCTION2 screen is displayed.

3. Set the return status using AUTO RETURN function.

- Set the status for the camera to return to automatically when it is not operated for a certain time.
- Setting values: OFF, HOME, A.PAN KEY, A.PATROL KEY

4. Set the time for AUTO RETURN to activate.

- Selectable time: 1 min, 2 min, 3 min, 5 min, 10 min, 20 min, 30 min, 60 min
- When “AUTO RETURN” is set to “OFF”, “---” will be displayed and setting will be disabled.

5. Press the MENU button.

The screen returns to the MENU screen.

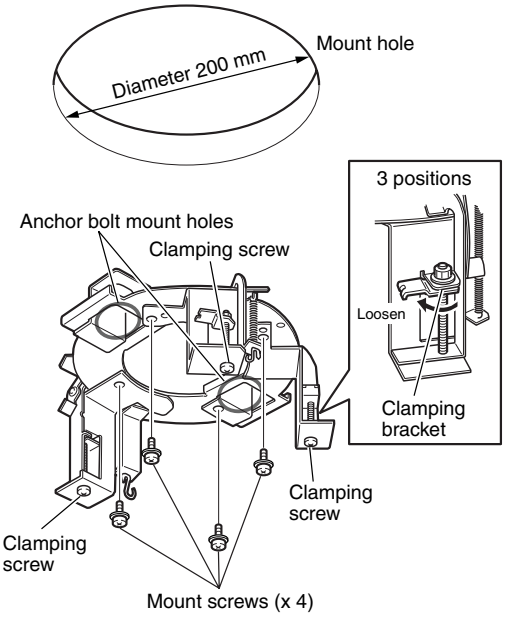
— MEMO

- During MENU setting and alarm operation, it will not return to the status set under AUTO RETURN.
- After the alarm operation, it will return to the status set under AUTO RETURN.
- When using AUTO RETURN function, make sure to use the REMOTE CONTROL UNIT of the product with model name RM-P2580(A) as on the serial number plate. RM-P2580 without (A) will not function properly.

Others

Attaching a Ceiling Flush Mount Bracket (Optional WB-S575)

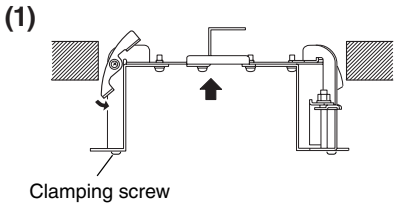
The ceiling flush mount bracket (optional WB-S575) allows the camera to be installed flush with the ceiling surface. In this case the ceiling material should have a thickness of between 5 mm and 31 mm.



1. Make a hole (diameter 200 mm) in the ceiling.

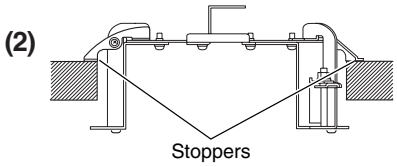
2. Prepare the Ceiling Flush Mount Bracket.

- Fully loosen the clamping screws (by turning them counterclockwise).
- Move the clamping brackets toward the inside as shown in the diagram.
- Remove the four mount screws.

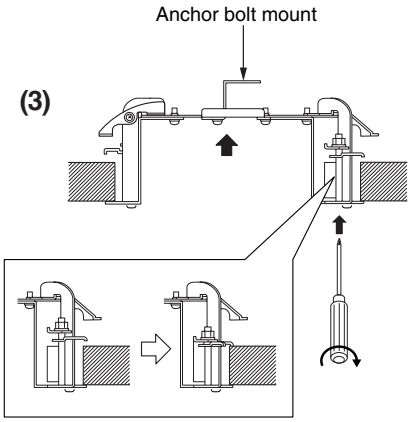


3. Clamp the Ceiling Flush Mount Bracket.

(1) Fit the Ceiling Flush Mount Bracket into the hole in the ceiling.



(2) Ensure that the stoppers are pressing against the back of the ceiling plate.

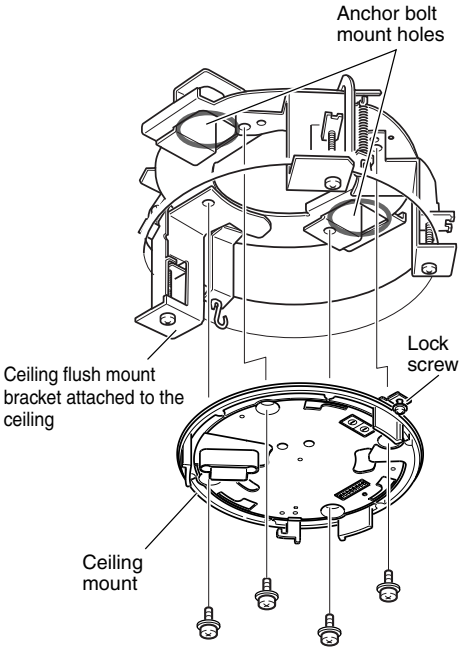


(3) Push the Ceiling Flush Mount Bracket all the way up and tighten the three clamping screws (by turning them clockwise).

CAUTION

- Make sure that the clamping brackets grip the ceiling plate firmly.
- If the ceiling flush mount bracket rattles after the clamping screws are tightened, loosen them fully and tighten them again.

If anchor bolts can be used, attach them using M8 - M10 (or 3/8 inch) nuts.



4. Connect cables to the Ceiling Mount.

☞ P. 16, “Connection Cables”

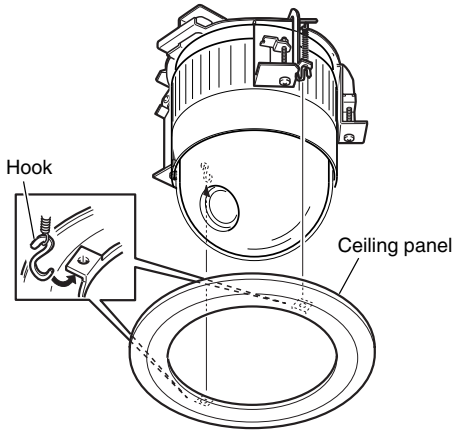
5. Attaching a safety wire to the ceiling mount.

Attach a safety wire to the ceiling mount and to the ceiling slab or channel to prevent the unit from dropping. First attach the safety wire to the ceiling mount by passing the wire through the safety wire hole.

☞ P. 18, step ***1.*** “Attaching a safety wire”.

6. Attach the Ceiling Mount to the Ceiling Flush Mount Bracket.

- Attach the Ceiling Mount to the Ceiling Flush Mount Bracket, taking care not to catch the connection cables.
- Please use the four screws provided (M4 x 12 mm). If the screws that have been removed in step ***2.*** above are used, the camera may not be installed properly and may fall.
- Attach so that the lock screw of the Ceiling Mount is positioned below the anchor bolt mount hole of the Ceiling Flush Mount Bracket.



7. Attach the camera to the Ceiling Mount.

☞ P. 18, “Attaching the Camera”

8. Attach the ceiling panel.

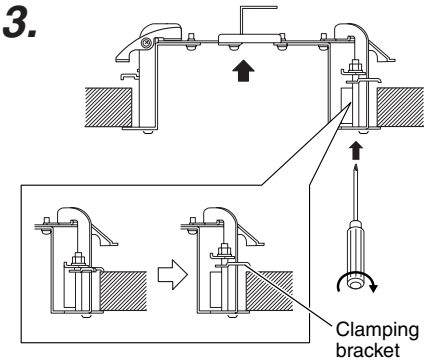
Attach the ceiling panel, provided with the Ceiling Flush Mount Bracket, by attaching the two hooks one by one.

— MEMO —

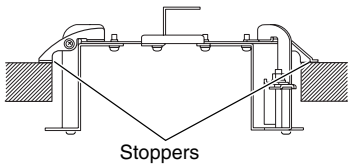
Both the ceiling flush mount bracket and the drop prevention attachment should be insulated from the ceiling structure.
If the ceiling structure is made of a metallic material, an improper insulation with the camera may produce noise in the video.

Removing a Ceiling Flush Mount Bracket (Optional WB-S575)

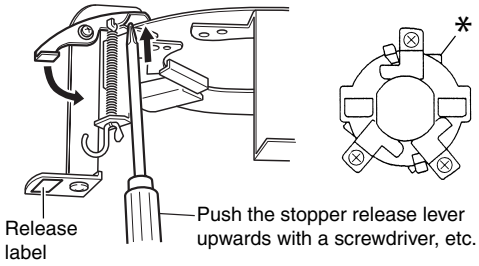
3.



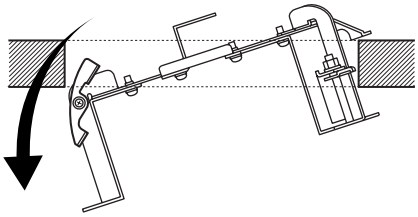
4.



5.



6.



<Check the release labels thoroughly before removal.>

1. Remove the ceiling panel.

Pull the ceiling panel and disengage the two hooks.

2. Remove the camera.

Remove the camera from the Ceiling Mount by reversing the attaching procedure.

☞ P. 18, “Attaching the Camera”

3. Loosen the clamping screws of the Ceiling Flush Mount Bracket.

- Loosen the three clamping screws (by turning them counterclockwise).
- Make sure that the clamping brackets move inwards.

4. Lower the Ceiling Flush Mount Bracket until the stoppers contact the ceiling plate.

5. Push up the stopper release lever, marked (*) in the figure, using a screwdriver.

- While holding the Ceiling Flush Mount Bracket from below so that it does not drop, push up the one of the three stopper release levers marked (*)using a screwdriver or a similar tool.
- If the ceiling plate is thick and the stoppers cannot be released easily, push up two of the stopper release levers (including the one marked (*)).

6. Pull out the Ceiling Flush Mount Bracket from the hole in the ceiling.

Tilt the Ceiling Flush Mount Bracket and move it obliquely downward to remove it.

Troubleshooting

Symptom	Cause (Information)	Remedy
Picture is not displayed.	• Is there a problem in the power cable(s) connecting the camera to the power supply unit? (If the power cable(s) are too long or of an inadequate size, the correct voltage may not be supplied due to an increase in cable resistance.)	• Use cable(s) with low cable resistance and of the correct cable length. (Ensure that the voltage supplied to the terminal board is correct during camera operation, i.e. when the rated current is flowing through the camera.)
Power cannot be turned on.	• Are cables connected properly to the terminal board on the Ceiling Mount ?	• Connect the cables properly.
Power can be turned on but it later turns off when the pan/tilt mechanism starts operation.	• Is there a problem with the power cable(s) connecting the camera to the power supply unit? (If the power cable(s) are too long or of an inadequate size, the correct voltage may not be supplied due to an increase in cable resistance during the pan/tilt operation.)	• Change power cable(s) to one(s) of lower resistance (i.e. thicker or shorter cable(s)). (☞ P. 16)
Video sync error occurs.	• When LL is set, does the power supply frequency match the video frequency (50 Hz)? • Is a large noise interfered with the power supply?	• Use a stable power supply with a matching frequency. • Prevent any penetration of noise in the power supply.

Specifications

■ Camera

Image pickup device : 1/4 type, interline transfer CCD, 752(H) x 582(V) pixels.

Sync system : Line Lock, Internal

Scanning frequencies : Horizontal 15.625 kHz, Vertical 50 Hz

S/N : 50 dB (typical), (AGC OFF, ENHANCE –5)

Minimum object illumination

TK-C655 : Color mode:
2.0 lx (50% output, AGC 20 dB, WIDE end)
1.0 lx (25% output, AGC 20 dB, WIDE end)
B & W mode:
0.06 lx (50% output, AGC 20 dB, WIDE end)

TK-C676 : Color mode:
1.8 lx (50% output, AGC 20 dB, WIDE end)
0.06 lx (50% output, AGC 20 dB, WIDE end, electronic sense up x32)
0.5 lx (25% output, AGC 20 dB, WIDE end, electronic sense up x2)
B&W mode:
0.05 lx (50% output, AGC 20 dB, WIDE end)

Dynamic range : 52 dB (ExDR mode)

White balance : TTL auto tracking/Manual

Electronic shutter : 1/50 sec. (standard), 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 sec.

Back light compensation : Possible by selecting 4 photometry areas

Color level adjustment : Possible

Contour correction (ENHANCE) : Both Horizontal and Vertical (level adjustable)

■ Lens

TK-C655 : Zoom ratio
Approx. x25

: Focal distance 3.8 mm to 95 mm

: Maximum aperture
F1.6 (WIDE) to F3.7 (TELE)

TK-C676 : Zoom ratio
Approx. x27 (Approx. x270 with electronic zooming)

: Focal distance
3.8 mm to 103 mm

: Maximum aperture
F1.4 (WIDE) to F3.0 (TELE)

■ Pan/Tilt Mechanism

Panning range : 360° endless revolution

Panning speed : 1°/s to 300°/s

Tilting range : 0° to 180° (Horizontal – Straight downward – Horizontal)

Tilting speed : 1°/s to 180°/s

■ General

Power supply : AC 24 V, 1.3 A

Number of preset positions : 100

Applicable remote control unit : RM-P2580

Control signal connection terminal : EIA RS-485 compliant, 9600 bit/sec.

Ambient temperatures : –10°C to 50°C (operating),
0°C to 40°C (recommended)

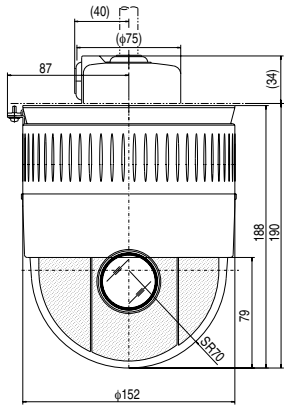
Ambient humidity : 35% to 90%RH (without condensation)

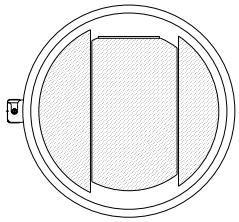
Drip-proof property : IEC529 (TK-C676 only)

Mass : 2.4 kg

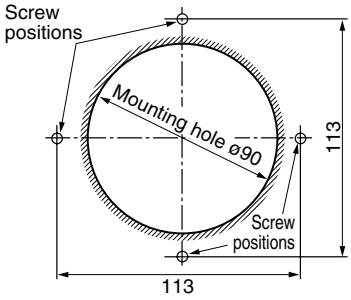
Accessories : Instructions 2
Ceiling mount 1
Screw (M3 x 12 mm) 1
Screw (M4 x 12 mm) 4
Cable plate 1
4P alarm cable 1
6P alarm cable 1

■ External dimensions [Unit: mm]

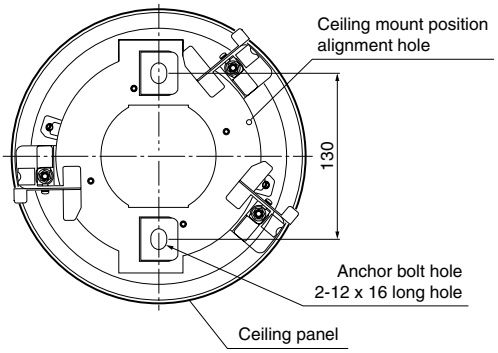




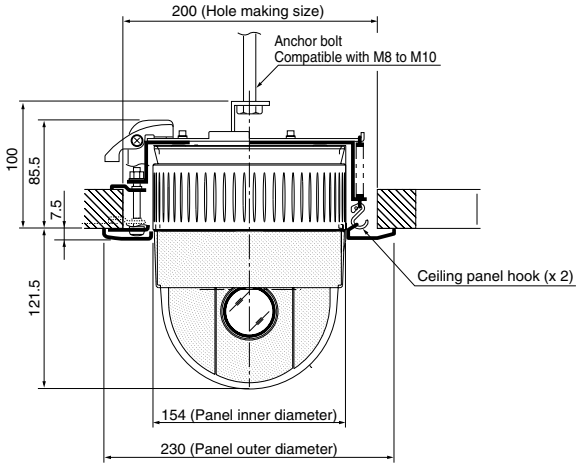
■ Ceiling mount hole



■ WB-S575 (Ceiling flush mount bracket + Ceiling panel)

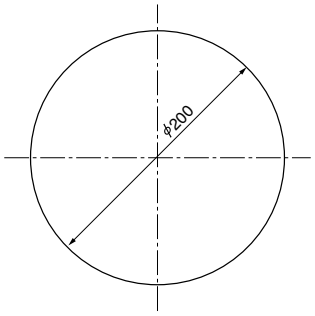


■ Dimensions in combination with the WB-S575



■ Ceiling mount hole for WB-S575

Ceiling mount hole
(Plate thickness: 5 mm to 31 mm)



** Design and specifications are subject to be changed without notice.*

TK-C655/TK-C676 DOME TYPE CAMERA

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